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ABSTRACT

The two-part manual is designed as a source of information to aid University of Wisconsin Extension Faculty in helping citizens understand land use problems and to assist in the development of work plans, resource allocation, program priorities, and budget preparation. Part I describes the rationale for land use planning and identifies and discusses critical state land resources. It describes communities where land use education takes place, explains land use planning, discusses planning for critical resources and the potential relationship to a comprehensive plan, notes how to implement a land use plan, explains administrative land use programs, and discusses program evaluation and extension programming. Part II contains an annotated listing of materials useful in developing land use programs. Organized by the subjects outlined in Part I, Part II lists approximately 475 Wisconsin Extension, University of Wisconsin, state of Wisconsin, and other state/federal publications and classifies them according to audience appropriateness. The entries include author, title, publication information, source, and, for audio-visual materials, time and cost. Appendices include eight case studies reported by Extension agents involved with land use planning at the county level, and a list of materials available from other state governments and inter-governmental organizations. (SB)

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MANUAL

Education for Land Use Planning

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University of Wisconsin-Extension
Committee on Resource Policy & Land Use Planning

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MANUAL

EDUCATION FOR LAND USE PLANNING

University of Wisconsin-Extension
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Abbreviations

The following abbreviations are extensively used throughout the manual:

University

Ag Econ	Department of Agricultural Economics, Madison
Ag Eng	Department of Agricultural Engineering, Madison
CALS	College of Agricultural & Life Sciences, Madison
Eng	Extension Engineering, Madison
ERU	Extension Environmental Resources Unit, Madison
Forestry	Department of Forestry, Madison
GNHS	Extension Geological & Natural History Survey, Madison
IES	Institute for Environmental Studies, Madison
IGA	Extension Institute of Governmental Affairs, Madison
LA	Department of Landscape Architecture, Madison
RRC	Extension Recreation Resources Center, Madison
Rural Soc	Department of Rural Sociology, Madison
Sea Grant	Sea Grant College Program, Madison
Soil Sci	Department of Soil Science, Madison
SRL	Extension Survey Research Laboratory, Madison
SSWMP	Extension Small Scale Waste Management Project, Madison
SWCU	Extension Soil & Water Conservation Unit, Madison
UW-EC	University of Wisconsin - Eau Claire
UW-GB	University of Wisconsin - Green Bay
UW-Milw	University of Wisconsin - Milwaukee
UW-Osh	University of Wisconsin - Oshkosh
UW-Park	University of Wisconsin - Parkside
UW-Platt	University of Wisconsin - Platteville
UW-RF	University of Wisconsin - River Falls
UW-S Pt	University of Wisconsin - Stevens Point
UW-Sup	University of Wisconsin - Superior

University, cont'd.

URPL	Extension Department of Urban & Regional Planning, Madison
WE	Department of Wildlife Ecology, Madison
W & FL	Department of Women and Family Living Education, Madison

Agency	
ASCS	U.S. Agricultural Stabilization & Conservation Service
BLRPC	Bay Lakes Regional Planning Commission
BSWCD	Board of Soil & Water Conservation Districts
CZMP	Coastal Zone Management Program
DA	Wisconsin Department of Agriculture
DBD	Wisconsin Department of Business Development
DHSS	Wisconsin Department of Health & Social Services
DLAD	Wisconsin Department of Local Affairs & Development
DNR	Wisconsin Department of Natural Resources
DOA	Wisconsin Department of Administration
DOR	Wisconsin Department of Revenue
DOT	Wisconsin Department of Transportation
EDD's	Economic Development Districts
EPA	U.S. Environmental Protection Agency
FHA	U.S. Federal Housing Authority
FHmA	U.S. Farmers Home Administration
HUD	U.S. Department of Housing & Urban Development
NWRPC	Northwestern Wisconsin Regional Planning Commission
PSC	Wisconsin Public Service Commission
RC&D's	Resource Conservation & Development Districts
RPC's	Regional Planning Commissions
SCS	U.S. Soil Conservation Service
SEWRPC	Southeastern Wisconsin Regional Planning Commission
SPO	State Planning Office, Wisconsin Department of Administration
SWCD's	Soil & Water Conservation Districts
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
Vet Dept	Wisconsin Department of Veterans Affairs
WHFA	Wisconsin Housing Finance Authority

PREFACE

This manual has been developed by the University of Wisconsin Extension, Resource Policy and Land Use Planning Committee. The specific charge of the committee is as follows: 1) identifying needs for educational programs for local citizens in resource policy and land use planning, 2) developing program priorities and introducing these priorities into the ongoing processes of program development in counties, districts, and in the state, 3) assisting individuals and groups of faculty in program development and, as needed, developing programs of the committee itself, and 4) continuing these processes on an ongoing basis.

UW-Extension has been involved in land use planning and policy activities for more than 50 years, and has made major contributions to shaping land use policy in Wisconsin. Rooted in these years of experience and in literally thousands of meetings with town and country citizen groups and governmental boards and committees, Extension faculty have continuously expressed a commitment toward involving citizens in planning programs.

Today, increasing pressures on a fixed land base are stimulating citizen interest and concerns for land use planning and regulation. We plan our homes, our farms, our businesses. Now, increasing numbers of Americans are becoming aware that land is a finite resource and, as a result, are seeing the need to plan rationally for land use. To help citizens plan for land use requires knowledge. This manual is directed toward this end; it is designed as a source of information to aid the Extension faculty member in helping citizens understand land use problems and how they can solve problems through democratic processes. Moreover, the manual will assist Extension in the development of plans of work, both annual and long range, in allocating resources within budget periods, in establishing program priorities and biennial budget preparation.

Committees within University-Extension develop programs involving numerous departments and administrative units. Membership on program committees consists of statewide faculty (specialists) with expertise in the subject, and selected agents who program in land use education. Agents on the committee represent both the county or area within which they work, and the concerns of their agent colleagues in an administrative district. Other faculty are invited to participate on a regular basis with the committee.

The mix of agent/specialist membership insures an interchange between subject matter; specialists and agents who deal daily with citizen concerns. This interchange, thus provides the committee with an excellent basis for making judgements on program priorities, where existing and new resources will be allocated, and program planning needs.

The manual is designed to be flexible, subject to modification and change from time to time. Section VIII, "Extension Programming" will be revised each year as program priorities are established. These judgements will be based on the expressed needs of citizens, agents, and on critical statewide land use planning needs.

The first half of the manual consists of a narrative describing the rationale for the process of land use planning. Critical state land resources are then identified and discussed in a land use planning context. Subsequent discussions deal with the process of preparing and implementing land use plans.

The latter half of the manual consists of a listing of educational materials which Extension faculty may use in developing programs; the page numbering system corresponds with the numbers for each chapter and topic. Various state/federal publications and audio-visual materials are identified according to content and applicability for various types of audiences. Where possible, the list indicates where these materials can be obtained. Finally, the appendix includes several case histories from agents who have been involved in land use planning at the county level.

The "Needs" section under each topical heading is designed to focus attention on unmet Extension educational needs (support materials, such as circulars, bulletins, audio-visuals, etc. and program needs). As the work of the Resource Policy and Land Use Planning Committee continues, more explicit direction will evolve in the "Needs" sections.

The manual has been prepared by numerous individuals. Thus, there is substantial variation in style, length and detail in content by subjects. Over time, revisions in the manual will tend to reduce this "unevenness" in content. However keep in mind that the manual is a working tool and has not been designed to be a final product.

Situation

- People--locally, statewide, nationally, and worldwide--are becoming increasingly concerned about the need for the wise use and protection of natural resources including land. This stems, among other reasons, from shortages of low-cost energy, land resources, key minerals, and wood products; the vulnerability of land to harmful changes, from competition and conflicts among uses of land resources; from a concern for the public health effects of resource use; and from a desire to preserve some of the natural environment in its "original" state.

- Increased attention is being given to: technological and environmental alternatives, equity questions, costs, roles of public and private sectors on energy and resource questions.

- Increased public debate and discussion of these issues is occurring.

- Issues are complex, interdisciplinary, often interrelated and involve values as well as technical information. They relate to and affect all groups within society.

- People lack facts upon which to base new kinds of specific individual or family actions. They are concerned because they sense a lack of ability to meaningfully control or influence decisions which may affect them individually or collectively on relatively important or vital questions.

- Substantial public skepticism exists regarding the reality of or reasons for shortages, increased costs, and equity aspects of these changes, and the ability of governmental institutions to adequately protect individual interests.

- Increasing demands for land resources coupled with a finite amount of land means that issues relating to the use and protection of the land resource become increasingly important in the years ahead.

Justification

Public readiness for problem-oriented education as well as continuing disciplinary education has substantially increased because of the situation just outlined. Universities are regarded as a prime source of reasonably objective information on major problems and issues. They are also regarded as a reliable source of specific factual information. UW-Extension has substantial expertise, a designated mission, and substantial experience in public policy, public service, and discipline-related education in the areas of resource management and land use planning. By reordering existing priorities and adding new resources, substantial and significant new programs can be developed.

Objectives

To help individuals, organizations and groups (public and private) address the urgent questions on land resources which range from the specific, immediate and simple, to the broad, long-range and complex. To provide this help by mounting an integrated set of programs and projects which: transmit results of existing or new research; disseminate known facts, procedures and programs more broadly; analyze alternative effects of existing and proposed public and private programs and projects; raise policy issues and appraise their alternatives and consequences in light of differing values; demonstrate new procedures and devices for using land and natural resources; identify needed new research, and thus to increase both individual and community capabilities for decision-making and purposeful actions on using land and natural resources.

Towards a Planning Process

- The following pages outline a systematic approach to land use planning. Extension educators seldom have the opportunity to develop in a structured, logical process, a program for land use planning education. Rather, the faculty member, whether agent or specialist, must seize on problems which people believe need answering, and where possible, direct their concerns towards a land use planning process. Although the point at which the educational opportunity presents itself will vary, and the sequence in which the program will be offered will differ, the general objective shall be to include the elements appropriate to a comprehensive planning process.

- Directing land use is a complex task. Land can be used in many different ways; some uses may be socially acceptable, while other uses may be in direct conflict with community goals. Regulatory programs constrain private property owners' freedom of choice to make land use decisions. As a consequence, the process of land use planning and regulation becomes a dynamic political process. Generally, the Extension educators' role shall be to involve citizens in the process, to insure that alternative land use proposals are developed and debated, and when plans are adopted, to conduct educational programs. Extension historically has been deeply involved in actually doing land use planning. However, as local units of government and regional planning commissions increase their capability, Extension's role will appropriately shift from planning per se to the important task of land use planning education.

- In general, the specialist's role will be to develop supporting materials (films, publications, etc.) for use by agents and to provide direct support to agents on complex land use issues. Because planning must be a continuous process, the agent assumes a critical role in insuring that education programs are likewise an on-going process. Agents also can make important contributions to the literature, by developing case histories on planning educational programs, both failures and successes.

- The Extension Committee on Resource Policy and Land Use Planning through periodic meetings and communications shall evaluate annually the effectiveness of land use educational programs and make judgements on specific program priorities for each year. This manual provides a frame of reference for continuous program development.

I. Communities: Setting Where Land Use Education Takes Place

A. Community Definition

This is a critical task in the planning process. The definition of community is important for at least two reasons: 1) Land use plans and action programs based on those plans require the understanding, acceptance, and support of many different groups or communities. To work effectively with those groups/communities, planners and Extension educators need to know, realistically and accurately, the composition of the groups and what their interests are. 2) Effective education on land use issues rests in large part on an understanding of the geographic scope of the problem or issue. Adequate housing opportunity, for example, is a regional issue or problem. Housing demand does not stop at governmental boundary lines. Effective education programs in housing recognize that fact.

The groups or communities to be considered will vary depending on the type and complexity of the land use issue. A relatively simple issue--such as the formation of small sanitary district to serve residences in a remote rural town--may involve only a few, easily defined interested groups/communities: the town government, the members of the district, and the state environmental protection agencies. A complex issue--such as planning for the community impacts of a large new mining operation on publicly owned lands--may involve several state and federal agencies (e.g. those responsible for management of the public lands, environmental protection, economic development, taxation, and community development grants for sewer, water and housing), governmental bodies in the affected counties, towns, and cities (the impacts may "spill over" the boundaries of any one county, town or city), school boards, private environmental and economic development groups at local, state and even national levels, and the businesses and industries directly associated with the mining development as well as those indirectly affected.

In complex communities and complex program areas, agents and specialists may need to work together to define the geographic scope of the issue, as well as the composition of the community.

Sources of Public Assistance		Clientele
University	Agency	
1. URPL	1. DLAD	1. Community groups
2. Ag Econ	2. State and federal agencies with program responsibilities: e.g., DNR 208 program, SCS Watershed program	2. Local governmental units
3. Campus Geography Departments		3. Local business
4. IGA		

Needs

Bulletins outlining techniques which can be used to identify "Communities" for different planning purposes.

B. Defining Community Goals

Reliable judgements must be made regarding what the public wishes their community to be in the future. Some communities, for example, may favor stability; others, moderate growth; still others, accelerated growth. Some communities may stress job creation; others, environmental protection; others improvements in the physical or recreation facilities of the community. Perceptions of what the communities' goals are, or should be, may vary substantially among appointed/elected officials, other influential people in the community, and the average citizen. The agent can assist in community diagnosis to insure that goals deal with basic causes and not symptoms. Numerous techniques have been developed to assist an agent and help a community define its goals. Each technique has strengths and weaknesses. Some may be more appropriate than others in a given situation. Some techniques can be applied directly by an agent with minimal effort. Other techniques may require specialist assistance, or the expertise of the UW-Extension Survey Research Laboratory (SRL).

Sources of Public Assistance

University	Agency
1. SRL	1. DLAD
2. Rural Soc.	2. RPC's

Clientele

1. General public
2. Minorities
3. Government officials
4. Youth
5. Women
6. Business
7. Professional
8. Labor

Needs

Audio-visual materials that explain that because the boundaries of a problem or issue (e.g. the housing stock of community which may shelter many people who gain their livelihood in another community) are often not the same as political boundaries, counties, villages, cities, and towns sometimes need to work together to solve problems.

C. Methods for Education in Land Use

Methods will vary depending upon the problem, clientele, perceptions, etc. A youth agent, for example, may wish to develop a land use planning educational program over a series of months, moving sequentially, step by step, through this outline. In other situations, a resource agent may seize on a crisis (a flood, regulatory order closing a dump, etc.) to not only deal with the crisis but to lead the community to first understand the problem within a planning context and second to initiate a broad land use educational program. Specific case histories where the latter approach has been used will provide insights for Extension faculty dealing with similar or different crises. Agents are uniquely qualified to develop case histories based on their experiences. Case histories not only have value to other agents and faculty members; they also provide a basis for professional recognition which may be commonly overlooked.

Sources of Public Assistance		Clientele
University	Agency	
1. URPL	1. SPO	1. Community leaders
2. LA	2. RPC's	
3. Agents (see case histories in Appendix)	3. Local planning agencies	

Needs

1. Case histories illustrating both successes and failures at the local level should be prepared by agents/specialists; emphasis should be placed on process, techniques, and results. Specialist editorial assistance would materially help agents in case history preparation.

2. Systematic, in-depth evaluations of planning programs, whether comprehensive or functional, need to be conducted in counties where substantial Extension resources have been devoted to planning programs.

II. Land Use Planning, Why?

Planning can be described as the process of preparing, in advance, recommendations for policies and courses of action to achieve generally accepted community (local, state, national) objectives, with careful attention to the probable by-products, side effects and spillover effects of those recommended policies. When policies and courses of action relating to land use are involved, then we are planning for land use. To many, carrying out the recommended policies and courses of action are also part of the planning process.

This idea of land use planning may seem to conflict with the notion of "a nation of freeholders" where every person has the right to use their land as they see fit. Yet community cooperation is a powerful American tradition. Public understanding of the need for public land use planning and regulation is developed early in the Extension educational process. The Extension educational program deals with: protection of private property rights, separating conflicting uses, maximizing the economic value of land, minimizing land development costs, protecting landowners from nuisances, preservation of critical or scarce land resources, providing access to land, equal opportunity for minorities, etc.

Educational programs also deal with the question which appears to be of growing interest to landowners in Wisconsin today: what limitations does society rightfully place on the private landowner? When must the landowner be compensated for the reduction in land value or use that follows land regulation? In what direction is society moving on the question of private versus public rights in land? "The right to make money buying and selling land is a cherished American tradition, and one that cannot be lightly ignored. But in an increasingly crowded and polluted environment, can we afford to continue circulating the myth that tells us that the (U.S. Constitution) protects this right of unrestricted use regardless of its impact on Society?"

There are inherent conflicts between the ultimate necessity to regulate land uses to carry out land use plans and the fact that most lands are privately owned by owners who believe that ownership is a shield against outside interference with their use decisions. That there is a strongly held belief about the sanctity of private property is no myth. The belief is rooted in our social, historical heritage going back to Runnymede, the Magna Carta, the Bill of Rights, the patterns of disposal of the vast public domain, the inclusion of a "takings" and a "feudal tenures" clause in the Wisconsin Constitution and in the social/economic events, so well described by UW historians Frederick Turner and Willard Hurst, which shaped the minds of those who shaped todays laws. But there is, in many minds, a lack of focus, and even an erroneous character to what people believed about the limit of government interference with the perogatives of private ownership. Public education, education that probably will be most effective when addressed to the young, is needed to clarify the nature of public vs. private rights and responsibilities over land.

But even if everyone basically agreed (and agreed on what they were agreeing on) that private ownership is not absolute and that public regulatory powers are valid, but subject to limits, the question remains where the line is to fall? How far is too far? If society advances to the point of discussing these questions in a rational manner within a few years, we will have advanced a mighty leap.

Sources of Public Assistance

University

1. Ag Econ
2. URPL
3. IGA

Agency

1. District attorney and corporate counsels
2. SPO
3. DLAD
4. Regional and local planning organizations

Clientele

1. General public
2. Land users, especially farmers, developers, and resident and absentee landowners
3. Land use enforcement officials (zoning, administrators, sanitarians, etc.)

University	Agency	Clientele
	5. SWCD's	4. Local elected officials
	6. SCS	5. Youth

Needs

Despite the many educational programs and maderials that are available on this subject of land use planning, there is still a need for more bulletins, circulars, audio-visual materials, etc. dealing with the "taking issue". The public needs more informational material that spells out the various private and public rights in land, and where compensation does/does not apply.

III. Land Use Planning, How and by Whom?

A. Data

Data concerning the economic, social, physical, and political features of the community, and its people, values, history, and traditions are basic tools in land use planning.

Sources of Public Assistance

University

1. URPL
2. Ag Econ
3. IGA
4. LA
5. GNHS
6. UW-Madison Soil Science Department
7. UW-GB
8. UW-RF
9. UW-S Pt

Agency

1. DLAD
2. SPO
3. RPC's
4. [illegible]'s
5. SWCD's
6. SCS
7. Local planning agencies

Clientele

1. General public
2. Local elected and appointed officials
3. Youth

Needs

There is a real need for up-to-date, complete resource data materials in Wisconsin. At the present time, the topographic, geologic, soils maps, and aerial photography that we have are incomplete and non-uniform. The publication "Inventory of Wisconsin's Resource Data" (1975) does show what types of resource data are available for various portions of the state. In viewing this, it is found that there are many gaps and some over-lap in the current resource data available in Wisconsin. (State Planning Office, Dept. of Administration, Madison)

B. Who Plans

Land use planning is a flexible process. It is accomplished in many different ways. Sometimes it is conducted in relative isolation by professionals and their immediate client group. At other times, it is undertaken in concert with other individuals, citizen and special interest groups, public planning agencies and institutions, or private consultants. As a general rule, Extension efforts might best be concentrated on planning programs where the process is open and conducted in a spirit of cooperation as well as where citizens and interested non-client groups are involved in the total process.

Sometimes land use programs focus on developing a blueprint-ready plan to solve problems or meet objectives. At other times, the focus is broadened to include elaborated alternative approaches to solving the same problems or meeting similar objectives. As a general rule, Extension efforts might best be concentrated on planning programs that involve the elaboration of alternative approaches as part of the process and to communicate those approaches.

Sometimes land use planning is a limited-term endeavor, culminating with the preparation and publication of an official plan document. At other times land use planning is conceived as a continuing, open-ended process. As a general rule, Extension efforts might best be concentrated on those land use programs that begin with the identification of values and objectives, well before the document production stage to implementation, evaluation, and periodic up-date reviews.

Sometimes land use planning is conducted largely as a technical exercise. At other times, it is conducted with an educational function that parallels its technical dimensions. Extension efforts might best be concentrated on those programs where parallel technical and educational dimensions are recognized and utilized, and where resources can be marshalled to sustain an on-going educational program.

The notion of land use planning as a cooperative, participatory, alternative-generating, open-ended, education-inclusive process is one that fits well with Extension's efforts to strive to meet a fundamental equity objective. Popularly stated, this objective translates into a desire to attempt to help any and all interested individuals and groups to help themselves.

In this light, the answer to the question of "who plans" becomes relatively easy to address (any and all interested individuals and groups) and the emphasis then shifts to the question of how it is possible to maintain meaningful involvement of such a diversely competent group of "planners".

In Wisconsin, land use planning is conducted by federal, state, regional, and local agencies; in Wisconsin's governmental units, who have both the power to plan land use and to implement plans, are municipalities, counties, and towns. Their respective roles are spelled out in greater detail in subsequent sections of the manual.

Sources of Public Assistance		Clientele
University	Agency	
1. URPL	1. RPC's	1. General public
2. Ag Econ	2. County and city	2. Elected and appointed officials
3. IGA	3. SPO	
4. LA	4. DLAD	
5. SWCU	5. RC & D's	
6. UW-RF	6. EDD's	
7. UW-GB	7. SWCD's	

Needs

1. Bulletins, circulars, audio-visuals are needed to clarify and distinguish the powers to plan and to regulate by towns, municipalities, counties, regional institutions, the state, and the federal government.

2. Case histories dealing with agent/specialist experiences with advocacy planning; reflecting views which might not be represented on the part of involved citizens or which may be unpopular with the majority.

3. Case histories on how an agent educates in a political arena.

C. How to Develop a Land Use Plan

The key to a local land use plan rests with the local citizens. In developing a land use plan, all segments of the local citizenry should have an understanding of how a land use plan is developed, why it is needed, and they should be given an active participatory role in its development for it to be successful. Common experience has shown that a planning program will work best where the citizen understands and participates in the planning process.

Extension agents can assume major responsibility for helping the public to understand the need for land use planning. This should be their first priority--to build a firm foundation of public understanding for this need. For the success or failure of their efforts often will rest with how well the citizens understand and respond to land use plans.

Within this educational process of developing an understanding for the need for land use planning, the Extension agent should also help the public understand the steps that are necessary in the preparation of effective plans. An effective planning process generally consists of making surveys, analysis and projections; defining problems; setting goals and objectives; formulating alternative ways to meet objectives; choosing among alternatives; implementing decisions; experiencing outcomes; identifying spillovers and side effects; and finally, evaluating those outcomes and updating goals and/or methods.

Once this understanding by the local citizen is obtained, the agent can nurture this public support into active participation by the local citizens in the formulation of the land use plan. It should be stressed that active public participation, however, will not be forthcoming unless the citizens perceive that they can make a difference--that they have access to data, that their views are thoroughly considered, and that they have a role in the identification of options and the evaluation of alternatives. Thus, the agents should stress in their educational program that the local citizen is the cornerstone upon which the land use plan rests. This local involvement will develop a firm base, understanding for, and support of the planning process. With this base, the agent can begin to build local, county, or area-wide planning programs.

Ideally, the land use plan will be integrated into a comprehensive plan for the county. The most useful purpose that a comprehensive plan can serve is to establish guidelines for policy determination. Within these guidelines, local officials have maximum opportunity of choice in making daily decisions on alternative courses of action, the results of which can be predicted with some degree of accuracy.

The comprehensive plan consists of many elements--all of which are interrelated to the extent that each must be considered from the standpoint of the county as a whole and the effect of one element upon another must be recognized. Some of the elements which normally go to make up the comprehensive plan are background studies in land use, transportation, public facilities, recreation, housing, utilities, etc. Each of these items requires study and planning, and each must mesh with the others. With a comprehensive plan the citizens of the county have the opportunity of seeing all aspects of the county's problems and arriving at an orderly plan for development where the need is greatest and in such a manner that the fiscal capatility of the county are not impaired, while, at the same time, ensuring environmental compatibility.

It should be observed that the process of developing a comprehensive county land use plan is a long, drawn out process. It involves many hours of work, encompassing both successes and failures. For example, the land use planning program in St. Croix County has been in progress for more than four years. Many hours of work, including many formal presentations before organized community groups, have gone into this program. Even with this amount of time and effort invested, it still is estimated that it will be another ten years before there is full and total implementation of this plan on a county-wide basis. [This long-time commitment is due to the fact that each town government within the county must ratify and adopt the comprehensive plan and ordinance before implementation can occur.]

This situation is not atypical, since the land use planning program for Barron County is almost a "carbon copy" of the St. Croix program--it also has been in the development phase for four years, involving substantial time and effort, and it also has been estimated that ten years will be needed before there is final approval and implementation of the plan.

From these facts, it is plain to see that the Extension agent must be committed to land use planning if programs are to be successful. The agent must be aware of the time and effort that will be required to develop a successful program.

Conflict is inevitable. When conflict occurs, efforts shall be made to direct it in an instructive fashion towards resolution. In some situations it may be useful to plan for conflict which will insure that problems are identified and alternative solutions debated. Since land use planning involves concepts that are often not understood by the average citizen, it frequently causes emotional reactions that obscure the facts and issues at hand. When this occurs, it is up to the agent to provide greater public education so that these individuals can analyze the issues in a cooler, more meaningful perspective.

To summarize, the successful development of a land use plan depends on several factors. These include: 1) educating the citizenry on the need for land use planning; 2) once this understanding is obtained, providing the citizenry ready access and opportunity to participate in problem identification, the planning process and eventually in the decision-making process; 3) providing and discussing alternative approaches that citizens have to problems that they face; 4) helping citizens to use their governmental institutions to adapt plans and to implement plans; 5) and lastly, a commitment on the part of the agent to an extensive amount of time and effort over a number of years.*

Sources of Public Assistance

University

1. URPL
2. IGA
3. Ag Econ
4. LA

Agency

1. DLAD
2. RPC's
3. Local planning officials
4. SPO

Clientele

1. Community groups
2. Local government officials

Needs

Contemporary bulletin summarizing in non-technical language, the steps common to most planning processes.

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*Included in the appendix are several county agents' views and experiences on how to go about developing comprehensive land use plans. Also included are several fact sheets showing the amount of time and effort that goes into the formulation of these plans.

IV. Planning for Critical Resources and the Potential Relationship to a Comprehensive Plan

Citizens, policy-makers, and legislative bodies most readily relate to easily understood, highly visible critical types of land use problems. The record in Wisconsin indicates that legislative bodies more readily adopt new programs dealing with perceived or real land use crises than with comprehensive land use legislation (Assembly Bill 882 of 1974 is an excellent example of an unwillingness on the part of the legislature to adopt comprehensive land use planning legislation and contrasts markedly with the successful enactment almost ten years ea[illegible] of the Wisconsin floodplain and shoreland zoning program).

At the present time, and within the foreseeable future, we can therefore anticipate that comprehensive land use planning and implementation will remain with local units of government. Although local units of government have the authority to plan comprehensively and to adopt comprehensive regulatory ordinances, concerns with highly specific types of land use problems will frequently take priority over comprehensive land use planning. Thus, the Extension challenge is to relate to these specific kinds of concerns and at the same time to use those opportunities to broaden the effort into a comprehensive planning process.

Specific types of land use problems and Extension's capability to relate to them are enumerated in the following narratives of this section.

A. Wetlands

To the settlers, wetlands were a nuisance, a problem to overcome, to permit the urban and agricultural development of Wisconsin. Local, state, and national land use policies reflected that fact, and more than 2.5 million acres (approximately 50%) of wetlands were drained in the state. Shifts in policy came in the 1930's as a result of the migratory bird treaty acts with Mexico and Canada, the creation of a U.S. Bureau of Biological Survey, the National Wildlife Refuge System and the Duck Stamp Act stimulated by the drought which endangered waterfowl species. More recently, ecologists have stressed the intrinsic value of wetlands as an important part of natural ecosystems. Today, Wisconsin citizens are concerned regarding wetlands and have been willing to support programs for their preservation; for example, purchase of wetlands by the Department of Natural Resources, and local park commissions, and local zoning ordinances. The 1965 Wisconsin shoreland and floodplain zoning program likewise reflected a concern for wetlands, and recently (1972), the Wisconsin Supreme Court in the "Just Case" in Marinette County ruled that wetlands were a critical part of a navigable waters system and thus could not be altered.

The legislature has debated, but has not yet enacted legislation which would broaden the states' role in wetlands preservation. This debate will continue.

Sources of Public Assistance

University

1. WE
2. URPL
3. Ag Econ
4. GNHS
5. SWCD

Agency

1. DNR
2. SPO
3. RPC's
4. BSWCD
5. SCS

Clientele

1. Youth
2. Farmers
3. Sportsmen
4. Muck farmers
5. Government officials

University	Agency	Clientele
6. ERU		
7. UW-Madison Soil Science		
8. Ag Eng		
9. UW-S Pt (School of Natural Resources)		

Needs

More informational programming and materials are needed which would enlighten the citizens of Wisconsin of the importance of wetlands. There should also be continual monitoring and delineation of the remaining wetlands to see what changes are taking place.

B. Agricultural Land

Wisconsin's rich agricultural land gives the state a competitive advantage in the production of food and fiber, provides a major source of employment for the state's citizens, and helps create a socially desirable life style. However, prime agricultural land is increasingly being taken out of production by unplanned urban and recreational growth and development.

In the last five years, agricultural land acreage in Wisconsin has decreased by about 100,000 acres per year--from 20.1 million acres in 1970 to 19.5 million acres in 1975. In the past 25 years, agricultural acreage in Wisconsin has decreased by 17%--from 23.6 million acres in 1950 to 19.5 million acres in 1975. The most severe loss of agricultural land has occurred in southeastern Wisconsin. Between 1950-1970, the seven-county region encompassing Kenosha, Waukesha, Milwaukee, Ozaukee, Racine, Walworth, and Washington counties lost 190,720 acres of land to urban uses. This represents a 216% increase in urbanized land, almost none of which will ever be returned to less intensive uses.

Major factors that have helped to force farmers out of business and that continue to encourage them to sell their land include: 1) the rise of property taxes on farms in urbanizing areas; 2) land use conflicts between farmers and suburban residents; 3) the absence of children or heirs who have the necessary resources and/or the desire to continue farming; and 4) the attractive development value of agricultural lands located in areas where the long-term future of farming appears uncertain or non-existent. The inability to exist in the face of sharply rising property taxes is the primary reason cited by farmers for the premature sale of their farms. However, even if a farmer continues to farm until he is ready to retire, the existence of one or more of the previous conditions mentioned will often bring about the sale of his land for non-farm purposes at retirement.

The implications of this loss of agricultural land are often overlooked by the citizens of the state. It should be pointed out that not only does this trend contribute to the over-expanding problems of urban sprawl, but also it raises significant questions about present and future food production--especially in times where a large portion of the world's population lacks food and suffers from malnutrition.

More planning and greater incentives are needed to keep farm lands in agricultural use, especially those lands that are considered "prime" agricultural lands. In 1974, Wisconsin citizens expressed a concern to protect agricultural lands in a favorable vote on a constitutional referendum to amend the state constitution to permit such lands to be taxed at lower rates. Subsequently, the state legislature has debated a bill which would implement the amendment. It appears that the debate will probably continue within the legislature on this matter for several more legislative sessions.

Sources of Public Assistance

University

1. Ag Econ
2. ICA
3. URPL
4. GNHS
5. SWCD's
6. CALS
7. UW-RF (Dept. of Plant & Earth Science)

Agency

1. DA
2. DOR
3. SPO
4. SCS
5. BSWD

Clientele

1. Farm groups
2. Youth
3. Environmentalists
4. General public
5. Local government

Needs

1. Alerting of the public to the rate and extent of accelerated erosion and sedimentation and what this means in money and food costs to our generation and future generations;

2. Study of the incentives and arrangements required to control accelerated erosion;

3. Develop further ways of safeguarding prime agricultural land;

4. Cataloging and publicizing the amount of prime agricultural land in Wisconsin and the amount that is lost each succeeding year and educating the public to the short run and long run implications to communities and the state;

5. Primers explaining what farmers can and cannot do with their land.

C. Mining - Metallic and Non-Metallic Deposits

Today, we are in the midst of what can be called a minerals crisis; namely, that our domestic and even world supply of some minerals is not keeping up with demand. The critical importance of minerals and the expanding use of and increasing demand for minerals has caused an increase in efforts to locate and produce them. This search for minerals will continue to intensify. Mineral extraction is, however, an industrial activity that often comes into conflict with other land uses. Mining in remote areas comes into conflict with recreational, wilderness, scenic, and wildlife uses, while mining near communities comes into conflict with intensive residential and commercial uses. Many mineral deposits have been lost to use because their locations and value were not recognized prior to the placement of buildings and structures on the land that they occupy. Other mineral resources have been rightfully lost because their use would conflict with even more unique land values. Thus, land use planning for mineral extraction is essential in order to ameliorate these conflicts in the best possible manner--providing for sequential land use, a minimum of conflict, and a set of controls to integrate mineral production with society's mineral demands and a community's land use objectives and plans.

This issue of land use planning for mineral extraction has recently become a major concern of the state, due to mineral deposit discoveries in Northern Wisconsin. The state legislature is studying proposals to revise the state's taxing laws on mineral extraction. The GNHS is being asked for information and expertise. DNR is reviewing its regulatory process. Environmentalists and recreationalists are concerned about the degradation of Northern Wisconsin and have questions concerning land reclamation. These discoveries will mean an economic boost to the region. The prospects of mineral extraction has generated much activity and debate in the state.

Thus, proper land use planning for mineral extraction in Wisconsin is of utmost concern to all its citizens.

Extension has concerns in this area, and recently created a subcommittee of the Resource Policy and Land Use Planning Committee on Mining and Minerals, chaired by Professor Duncan A. Harkin, Professor of Agricultural Economics (UW-Msn). The subcommittee includes various statewide and community faculty members. The purpose of the subcommittee is to 1) provide internal communication and coordination within University Extension; 2) provide support to counties and agents faced with mining problems; 3) identify needs and priorities for Extension programs dealing with mining; and 4) be one means of coordinating and communicating with other agencies of state government (i.e. Governor's Committee on Mining; DNR; etc.).

Sources of Public Assistance

University

1. GNHS
2. URPL
3. IGA
4. Ag Econ
5. ERU
6. UW-O (Geology Department)
7. UW-EC (Geology Department)
8. UW-GB (Geology Department)
9. UW-Madison (Geology Dept.)

Agency

1. DNR
2. RPC's
3. RPC's
4. County planner

Clientele

1. Mining companies
2. Local governmental officials
3. General public

Needs

1. More informational programming and materials are needed which would help the general public to understand the present and future implications of the "resource or minerals crisis". It is often difficult for the public to

understand these problems because the crisis doesn't directly affect the public (except for petroleum products) and because of the global nature of the problem involving a complex series of interrelationships.

2. Educational materials on the land use environmental implications of mineral and processing of minerals; delineation of the role and responsibilities of the private sector, local government, and state and federal agencies.

D. Land Use Around Public Facilities

The use of land around public facilities can either enhance or substantially detract from the public investment. For example, agricultural uses adjacent to airports are more compatible than are high-rises or single family residences. In fact, the latter may substantially reduce the possibility for an orderly expansion of the airport to meet increased air traffic needs. As a result, a new airport may eventually be required at substantial increased costs to taxpayers. In general, the agency responsible for the public facility does not possess the power to regulate land uses adjacent to the facility. For example, the Department of Natural Resources cannot prevent incompatible land uses adjacent to the 30-mile Elroy-Sparta bike and hiking trail; six towns and four villages make the land use zoning decisions.

These problems have led to suggestions that the power to make land use regulatory decisions adjacent public facilities be arranged more advantageously to protect public investments; i.e. county; county and state, state.

Sources of Public Assistance

University

1. URPL
2. IGA
3. Ag Econ
4. UW-RF
5. UW-GB

Agency

1. DOT
2. SPO
3. RPC's
4. DNR
5. DLAD
6. PSC
7. County Planning Commission

Clientele

1. Airport agencies
2. State agencies (DNR, DHSS, DOT)
3. Developers
4. Government officials (local)
5. Local residents

Needs

A generalized bulletin explaining the need for land use planning and regulation adjacent to major public facilities.

E. Land Use Adjacent to Highways and Protection of Scenic Beauty

Within the last few years, there has been increasing concern for improving the scenic quality of areas adjacent to the nation's highways. This concern has led to both state and federal legislation to meet this need. Specifically, legislation has been enacted which provides state agencies some capability to control signs and informational media (i.e. billboards) along certain classes of highways.

Billboards are generally in conflict with the natural scenic qualities of the landscape. This conflict can be caused by too many signs in a particular area, and also by signs which are either distracting, dilapidated, garish, over-sized, or otherwise unnecessary. Through passage of Section 84.30 Wisconsin Statutes, in 1959, Wisconsin complied with the Federal Interstate Highway program. This statute established a positive, defined control over all billboards along and within 660 feet of any Interstate highway right-of-way in the state. Subsequent legislation has extended the state's authority in regulating billboards. In 1972 Section 84:30 was amended to comply with the Federal Highway Beautification Act of 1965.

This new legislation gave the state stricter regulatory powers of billboards along or visible from the previously regulated Interstate and, more importantly, extended these controls to the "Federal-Aid Primary Highway System". The impact of this change was that more rigorous controls would now be exercised over nearly 6,000 miles of highway (Federal-Aid System) in the state compared to the more limited regulation previously exercised over only 478 miles of highway (Interstate system) in the state. In 1976, revisions of Wisconsin's Billboard Control Law were enacted which further strengthens state controls. Chapter 340, Laws of 1975 amends section 84:30 to the point where no signs may be maintained or erected which are visible from any Interstate or federal-aid highway. This change now enables the state to control "giant billboards" (i.e. those gigantic signs which were beyond the 660-foot control area and thus not subject to previous controls). Also included in this legislation is the authority to strictly regulate and restrict the establishment, operation, and maintenance of junkyards in areas adjacent to Interstate and primary highways within the state.

At the present time, the Department of Transportation is pursuing a strong program of acquisition of non-conforming billboards (those signs which were legal prior to passage of these sign control laws). This involves payment of just compensation to the owners of these billboards. The new billboard legislation should do much to improve scenic quality in areas adjacent to Interstate and federal-aid primary highways in the state. However, these laws do not control advertising along rural roads.

An increasing number of cities and incorporated villages are developing interest in stricter sign regulations at the local level. Some counties are taking steps toward ordinances that will stop future sign proliferations. Zoning assistance is being provided by the DOT Division of Planning, and District Highway Offices to help individual counties upon request, which is intended to help control outdoor signs in areas not under control of the state. Municipalities are also being encouraged to adopt comprehensive zoning ordinances which will strictly control signs within their jurisdiction.

The DOT scenic easement program is another related state program to ensure the preservation or scenic enhancement of lands adjacent to state trunk roads. An easement is a right to use the land of another for a special purpose or to restrict its use. In essence, the state buys the right of the private landowner to develop his land in a manner that detracts from the scenic quality of the land. These easements are used to restrict the construction of visual distractions such as billboards, junkyards, and other unsightly uses of the land. This approach was extensively used in preserving the scenic quality adjacent to the highway in conjunction with the establishment of the Great River Road along the Mississippi River. In addition to easement acquisition immediately along the state's highways, the easement acquisition program is also being used in the development of scenic overlook sites throughout the state. These sites are picked via a priority system, based on most desirable aesthetic qualities and those sites being most endangered by potential adverse development.

Another program geared toward scenic preservation along the state's roads is the Rustic Roads Program. Created in 1973, the purpose of this program is to preserve Wisconsin's scenic, low-volume county roads in their present "rustic" condition for the leisurely enjoyment of hikers, bikers, and motorists. In 1973, the Rustic Roads Board was established within the Department of Transportation. The Board is responsible for establishing this statewide system and exercising final approval authority for Rustic Road designation approval, the town/county must go through the following steps: 1) petitions from resident landowners along the road are obtained; 2) a public hearing is held; 3) the County Highway Committee, upon approval of the designation at local level, requests approval by the Rustic Roads Board. The Board reviews the application and has final approval over the designation official. To qualify, these roads must encompass specified scenic and natural resource criteria.

Once a Rustic Road is officially designated, the jurisdictional authority for the road is placed with the County Highway Committee of the county in which the road lies. The county becomes responsible for signing and maintaining the Rustic Road. Special Rustic Road signs are put up marking the route of all officially designated Rustic Roads.

In spite of these programs, increasing public and legislative concerns are being expressed regarding other types of incompatible land uses adjacent highways. Lands adjacent interchanges, for example, have enormous economic value. Unwise land use may substantially reduce these values, both to the community and the state, and in addition may adversely affect the smooth and safe flow of traffic on the highway.

Sources of Public Assistance

University

1. URPL
2. Ag Econ
3. LA

Agency

1. DOT
2. SPO
3. DNR
4. RPC's
5. County Planning Commissions
6. County Highway Departments

Clientele

1. General citizens
2. Environmental organizations
3. Scrap metal processors
4. Advertising firms
5. Chamber of Commerce

Needs

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F. Floodplains and Shorelands

Damage caused by floods to buildings and other property is constantly increasing in spite of large public expenditures for reservoirs, dams, and levees. To reduce these large expenditures, floodplain management involving such things as land use regulations, open-space land acquisitions, easements, etc. are needed to encourage the wise use of the floodplain prior to construction. In addition to reducing flood damages, floodplain and shoreland regulations also aid in preserving highly sensitive ecological areas such as wetlands and fish spawning grounds.

Wisconsin has enacted strict floodplain and shoreland laws. The application of these laws through local ordinances keeps these goals in mind by providing both a better, safer building site for the prospective and present landowners near water bodies, and the maximum protection to these water resources for the citizens' enjoyment.

Each county in the state is required to adopt standard regulations developed by the Department of Natural Resources under the auspices of the Wisconsin Water Resources Act of 1966. These regulations include zoning, subdivision controls, and a sanitary code for all areas within 1,000 feet of navigable lakes and flowages, and within 300 feet of navigable streams. Similarly, each county is required to adopt floodplain regulations developed by the DNR. These floodplain regulations apply to all lands adjacent to each navigable extension of a river or stream that would be inundated by the regional flood (i.e. a flood which could occur an average of once every 100 years).

Under either of the two regulations, it is illegal to build or add fill on a waterfront except as permitted by the zoning ordinances. The minimum lot width permitted on shorelands or floodplains is 100 feet and the minimum area is 15,000 sq. feet (about 1/3 of an acre) with no buildings occupying more than 30% of the total lot area. Buildings in a shoreland area must be set back at least 75 feet from the normal high-water mark. Areas within incorporated cities and villages are exempt from the county controls of shoreland and floodplain zoning, but they are obligated to establish their own regulations.

Sources of Public Assistance

University

1. Ag Econ
2. URPL
3. IGA
4. ERU
5. GNHS
6. LA
7. CZMP
8. WE
9. UW-GB
10. UW-S Pt

Agency

1. DNR
2. RPC's
3. Local planning officials
4. SPO

Clientele

1. Local government officials
2. Legislative bodies
3. Developers
4. Youth
5. Environmental groups
6. Civic organizations

Needs

Among the needs in this area are more educational/informational materials and programming which 1) help the public to be aware of the boundaries of floodplains; 2) help the public to be aware of the chances of loss and disaster as a result of buildings on floodplains; 3) help the public consider long-term alternatives to living or building on floodplains.

G. Environmental Corridors

As a result of research activities in the inventory of Wisconsin's natural and scenic resources, it was discovered that a unique linear pattern had been etched on the face of the Wisconsin landscape. In combining the water patterns of the state, excessive slope lands, and the rims of these sloped areas, it was found that an elongated design resulted which tied the land together in regional and statewide corridors of outstanding landscape quality. Furthermore, it was discovered that between 80-90% of the state's lakes, rivers, and streams, and their floodplains, wetlands, forests and woodlands, wildlife habitats, rough topography, significant geological formations, and wet or poorly drained soils were found within these corridors. As such, these corridors were termed as "environmental corridors."

These corridors encompass a complexity of resources which greatly influence the ecology and health of the landscape and the overall quality of the environment.

Recent trends have resulted in the encroachment of urban development into environmental corridors. Unplanned or poorly planned intrusion of urban development not only tends to destroy the very resources and related amenities sought by the development but tends to create severe environmental dislocations with area-wide repercussions. Thus, acknowledgement of these environmental corridors, the awareness of their uniqueness and importance, and efforts to preserve and protect them will and should be an issue of concern to the citizens of the State.

Sources of Public Assistance

University	Agency
1. LA	1. DNR
2. URPL	2. DLAD
3. ERU	3. SPO

Clientele

1. Landowners-residents and absentee
2. Environmentalists
3. Developers
4. Local government officials

Needs

Communications about land use and land use planning are missing. The Environmental Awareness Center in the College of Agricultural and Life Sciences is attempting to present this information and develop an awareness for land use in an interesting, entertaining way. There is a need for regional centers of this type to be located throughout the state. A "mobile awareness center" which would travel throughout the state would be useful in developing this awareness.

H. Solid Waste

The problem of solid waste has come to be a major problem facing the nation. It has been estimated that eight million pounds of solid waste are now produced daily in the United States. Historically, we have rid ourselves of this problem by burning it, burying it, or dumping it into the nearest water body. The commonly held view was one of "out of sight, out of mind". However, the old methods of just dumping or burning this waste are no longer acceptable. Hence, new methods and management practices have been devised to deal with our solid waste problem.

Today solid waste management is concerned with the storage, collection, recycling and disposing of waste from homes, businesses, and factories as well as from agricultural, forestry, and mining activities. The disposal of solid waste is both an economic and environmental concern, and is typically the focus of attention of most solid waste systems. But the collection of solid waste is also a significant concern, as 75-80% of the cost of solid waste management is in the collection of the waste. Furthermore, collection is a consumer-oriented service which must be adequately and equitably provided.

Wisconsin took early action in providing for adequate solid waste management for the citizens. In 1919 it established state supervision over refuse disposal. In the early 1950's, municipalities were allowed to have sanitary landfills outside their jurisdictional limits as long as they followed local and county zoning. In the early 1970's, counties were given the power to plan for solid waste management. In 1973, they were given the power to set up independent authorities to manage a system.

Developing a good solid waste system requires good planning. Landfills must be chosen and designed to minimize travel distances, to protect the water from leachate (a highly contaminated liquid formed as water flows through the waste), to control the gases produced as the waste decomposes and to maintain the site so that it does not become a nuisance in the neighborhood.

When collection systems are developed, the level of service desired by citizens is used to design the type of service, whether door-to-door, green box, or otherwise, to determine the frequency of service, and, of major importance, to determine the most economic system to meet the citizen's needs.

Solid waste management plans require the involvement of local elected and appointed officials, planners, engineers, civil leaders, and interested members of the general public. The analysis of potential alternatives is necessary for decision-makers to choose the system that is best suited for a community's needs.

Sources of Public Assistance

University

1. ERU
2. SWCD
3. GNHS
4. Eng

Agency

1. SCS
2. DNR
3. DLAD
4. RPC
5. WSWRA

Clientele

1. Elected officials
2. Planners
3. Civic leaders
4. Sanitary waste contractors
5. General public
6. Environmental organizations
7. Legislative bodies

Needs

1. There is still a strong need for educational programs and publications in the area of solid wastes. Local citizens need to see the benefits of land fill sites. Deprived of using the traditional town dump, they often view these "new" sites with hostility.

2. Materials outlining the advantages of area-wide solid waste disposal systems. Also, the relationships of total residuals management to source reduction and recycling need elaboration.

I. Heritage Areas Program (formerly CRIP)

In recent years the public has begun to look at natural resources as a finite resource. For example, wetlands, coastal areas, shorelands, scenic areas, areas of scientific interest are being lost forever due to thoughtless acts of man. These resources can be classified as being "critical resources" in the sense that they are finite resources and appear threatened unless some type of controls are developed for their protection. Often these "critical resources" are unique to the state. Thus the impact of land use upon these areas is of concern or interest to state citizens as a whole or the residents of more than one local community.

The protection of these critical resources requires sound planning and resource management decisions; a sufficient data base is required. However, there had been only limited resource inventories in the past, no inventory of the critical nature of Wisconsin's resources, and no definition of what constituted a "critical" resource. With this in mind, in 1972 the Critical Resources Information Program (CRIP) was developed cooperatively by the Department of Administration, the University of Wisconsin-Extension, and the Institute of Environmental Studies, with funds provided by the Department of Administration and the Upper Great Lakes Regional Commission. CRIP was designed to establish a systematic process for the identification and evaluation of the state's valuable resources. CRIP utilized many innovative techniques; the citizen-based resource identification workshop was found to be particularly effective and the decision was made to continue the program of local involvement in the context of counties located within the state. Through the cooperative efforts of the University of Wisconsin-Extension, the U.W. Department of Landscape Architecture, and Wisconsin Department of Administration, an independent program based on this county workshop idea has been established. This new program is being conducted under the title of the Wisconsin Heritage Areas Program.

The Heritage Areas Program offers various services to the county. It conducts county workshops in which invited citizens identify, evaluate, and delineate on maps valuable resources in eight or more resource categories. Following these workshops, it produces booklets and maps reflecting the citizens' perspective on county resources, and provides follow-up activities such as addressing local groups, interpreting workshop information, holding subsequent workshops on selected issues, etc.

The primary objective of the Heritage Areas Program is to provide Wisconsin counties with a mechanism through which the knowledge and experience of county residents can be made to contribute effectively to the county resource information base. The program will be tailored in each county to meet the needs of that county. Other related objectives are to raise environmental awareness by providing a focus for a county discussion of resource priorities, and to provide a way for counties to articulate their resource values for the benefit of state agencies (e.g. DNR, DOT) which make decisions regarding the county land resource.

If the county leadership feels that a workshop would be of benefit to the county, the Heritage Areas Program stands ready to provide assistance to them.

Sources of Public Assistance

University

1. IES
2. LA
3. ERU

Agency

1. DOA
2. SPO
3. DNR
4. DOT
5. RPC's

Clientele

1. Local governmental officials
2. Local citizens

Needs

The program should be broadened to more counties and materials developed outlining steps which can be taken to protect important cultural and natural resources in a community.

J. Electric Generating Facilities

Today an increasing number of people (e.g. farmers, planners, members of environmental groups) are aware of the issues and concerns which the location of future power plants and power distribution lines have raised. As the number of these electrical systems increase, public awareness and concern for the problems associated with power production and transmission are also increasing.

Besides the residual pollution effects of energy production, the individual and collective ability of the energy producers and transporters to direct and effect urban and industrial growth is not fully appreciated by society, nor are the consequences understood. It is apparent now that energy producers must (1) educate society to understanding future energy need projection estimates, and (2) work with communities when establishing the factors which need to be considered to reduce impacts that can result from construction and operation of energy production sites and energy transmission systems. Since collective society comprises the consumer and ultimately utilizes electric energy, society therefore has a justifiable role in future energy planning. An essential reason for any planning process, including energy planning, is to predict more accurately impacts, and plan to minimize impacts to the extent possible. Today planners, including energy systems planners, are required to predict environmental, social and economic costs prior to site (or route) selection.

The acquisition of new rights-of-way and the widening of old rights-of-way has become increasingly difficult in recent years as attempts are made to maintain economies in electrical power distribution, fairly compensate affected property owners, minimize the disturbance of a variety of environmental, ecological, economic and social systems. The range of aspects to be considered when locating power plants and transmission lines will vary in

Wisconsin in terms of specific features to be considered and the relative importance of the various features in the location decision. The range of aspects considered in locating electric energy systems should include the physical characteristics of the specific region (or regions) under consideration for a power plant or transmission line. Additionally, the concerns of public agencies, special interest groups, and private individuals should be taken into consideration when locating systems of this type. Some aspects to be considered are:

1. Least installation costs.
2. Loss of productive farmland to power transmission lines.
3. Least maintenance cost.
4. Fair payment for rights of way to property owners.
5. Maximum visual compatibility.
6. Minimum compaction of productive farmland during construction.
7. Least impact on recreation.
8. Difficulties of working farmland around structures and under transmission lines with modern machinery.
9. Greatest reliability to maintain continuous service to users.
10. Environmental concerns including pollution, aesthetics, and noise from EHV lines.
11. Least damage to the natural system.
12. Archaeological concerns involve the disturbance of prehistoric and archaeological sites.
13. Maximum utilization of existing right-of-way.
14. Life style concerns involve effects on radio and television reception.
15. Alignment and maximum utilization for future electric energy supply.
16. Physiological concerns including the effect of electric field upon people, animals, and crops.
17. Least impact on existing and proposed land-uses.

Some of these concerns can only be remedied through thoughtful planning and negotiation while other concerns will require additional research to gain understanding of problems and alternative solutions. The unmet demand for electric energy today will result in the construction of additional power plants and transmission lines in Wisconsin; effective planning, to minimize impact, will continue to be a significant land-use issue in the years ahead.

Sources of Public Assistance

University

1. LA
2. URPL
3. IES
4. GNHS
5. Department of Geology & Geophysics-UW-Madison

Agency

1. SPO
2. PSC
3. DNR
4. DOT
5. RPC's

Clientele

1. Utilities
2. Landowners
3. Local officials
4. Environmentalists
5. General citizen

Needs

Planning and regulatory procedures under state statute dealing with power plant siting need to be explained to communities which might be considered for potential sites.

K. Recreation/Public Lands

Recreational activities have become increasingly important to the citizens of Wisconsin. As incomes have risen and as more leisure time has become available, the citizens have intensified the demand on the state's resources for recreational activities. Due to this demand, state and local officials are continuously seeking ways to upgrade and increase their recreational programs, recreational facilities, and open space areas.

It should be noted that the focus here deals primarily with publicly owned facilities and open spaces, which are local in nature (e.g. county parks, bikeways, snowmobile trails, etc.). However, any time that public facilities are established, there may develop land use problems on private lands immediately adjacent. Hence, provision of public recreational facilities such as parks, beaches, historic, scenic, and archaeological sites, snowmobile and hiking trails involve important land use decisions for the local officials. In providing these facilities proper planning ought to be undertaken to ensure the maximum beneficial use of the available land, to adequately anticipate the present and future demand for these facilities, and to see that private land management is compatible with the public land management of these facilities.

Federal and state funding is available under a variety of public programs to aid in the expansion of recreational activities and facilities within Wisconsin counties. (Some of the major aid programs currently available are described following this narrative.) To become eligible for these public funds, a planning program is often required. Here the county must outline its current situation and needs in the area to be funded. For example, a five-year County Outdoor Recreation Plan must be done by the county for it to become eligible for state/federal financial and technical aid programs dealing with outdoor recreation. This plan must assess the county's current situation and lay out a feasible planning program for meeting the present and future outdoor recreational needs of the county.

Often, Extension agents are involved with the preparation of these plans. Local officials may delegate the major responsibility for the preparation of such plans to the Extension agent, who has a variety of resources available to assist in developing these plans. Assistance in technical aspects may be available by local contractors, often at a low or reduced cost, who could be involved in the construction of such facilities once funding is obtained. The agent can also turn, to regional planning commissions, DNR, or to the multi-faceted expertise of UW-Extension personnel to aid in developing these plans.

Although these plans are generally prepared to obtain eligibility for financial and technical assistance, they demonstrate the benefits of proper land use planning to local citizens, and thus, an excellent opportunity to broaden the land use planning awareness of citizens.

Sources of Public Assistance		Clientele
University	Agency	
1. Ag Econ	1. DNR	1. Recreationalists
2. URPL	2. SPO	2. Local officials
3. ERU	3. DOT	3. Landowners
4. IES	4. RPC	
5. RRC	5. DLAD	

Needs

Materials and educational programs which outline how conflicts in recreational uses may be minimized or eliminated through planning; i.e. power boats vs. sailing, snowmobiles vs. wilderness cross country skiing, etc.

Aid Programs

Land and Water Conservation Fund Act (PL 88-575)

This act (LAWCON) provides funds to local units of government (county, town, city, and village) on a 50-50 matching basis for the acquisition and/or development of recreation lands.

Eligibility to receive funds is contingent upon the applying governmental unit's recreation planning status and the capacity of the proposed project to meet predetermined state, regional, or local objectives. Actual funding of a project depends also upon availability of LAWCON monies.

Responsibility for the administration of this program has been delegated to Wisconsin's Department of Natural Resources, Bureau of Aid Programs.

Outdoor Resources Action Plan (ORAP)

A state-sponsored program administered by the Department of Natural Resources, ORAP provides 50 percent cost-sharing monies for approved acquisition and development projects to all municipalities meeting recreation planning requirements. Cost-sharing assistance is also available for the preparation of a comprehensive outdoor recreation plan.

Aids to Counties for the Development of Snowmobile Trails and Areas - Chapter 394, Laws of 1969, Wisconsin Statutes

This program offers counties the opportunity to develop snowmobile trails or areas on county-owned lands designated for this purpose. The program provides 100 percent funding from revenue obtained from the sale of snowmobile licenses, if adequate funds are available. If the funds are inadequate to provide 100 percent, funding is done on a pro-rated basis. Additional information may be obtained from the Bureau of Aid Programs, Department of Natural Resources.

Aid for Access to Public Waters - Chapter 340, Laws of 1963, Wisconsin Statutes

This program provides funds to local units of government (county, town, city, village) on a 50-50 matching basis for acquiring and developing access to public waters. Responsibility for administration of this program has been delegated to the Department of Natural Resources, Bureau of Aids.

L. Housing

"A decent place to live" is a strongly held goal of most every person in American society. Families invest more on their residence than any other single investment. Governments spend millions in promoting housing development. Huge segments of construction and manufacturing industries, and financial markets are devoted to housing. Courts have sanctioned imposition of massively oppressive land use controls when aimed at "family values, youth values, and the blessings of quiet secluding and clean air which make the residential area a sanctuary for people."

Despite the high value placed upon the objectives of quality housing, society continues to have "housing problems" which periodically rise to the status of crises on the public agenda. Generally, the problem is that not everyone has housing that satisfies minimal standards. More specifically, the problems are categorized as follows: inability of some to afford housing of adequate proportions/location/quality; limited choice in housing for the handicapped, elderly, immobile persons, large families and some minorities; resistance of consumers, neighborhood, and governments to new forms of housing such as modular/mobile and manufactured units, higher densities group occupancies, etc.; preventable deterioration of older housing units and areas.

A variety of remedies have been established for these problems, ranging from newly mounted housing assistance programs in state government (DLAD's housing program and that of the Wisconsin Housing Finance Authority and the expanded state Veterans Home Loan Program), to legislative/administrative attacks on non-uniform and/or exclusionary local ordinances on manufactured housing, to statewide minimum construction codes, plus the longer established (but frequently changing) federal assistance effort located in HUD and FHA.

UW-Extension has traditionally acknowledged the state's housing problems and has responded with a variety of research (e.g. Housing in Wisconsin: The Complex Obstacles to Better Homes, M. Thorpe, Institute of Governmental Affairs, University of Wisconsin-Extension, 1970), and local action by agents, many of whom are active, for example, with local housing authorities.

Sources of Public Assistance

University

1. URPL
2. Ag Econ
3. W & FL

Agency

1. DLAD
2. HUD
3. WHFA
4. FHA
5. Vet. Dept.
   Home Loan Program

Clientele

1. Housing consumers
2. Local governmental officials
3. Contractors
4. Real estate

Needs

1. The need for Extension work to link local needs with state/federal programs appears to be strongest vis-a-vis the state's new regulatory program over single family and manufactured housing. Other needs for Extension action include helping people diagnose their housing problems (a task which is never easy. For example, a program that begins by addressing the need for "winterization" help can easily slide into one which addresses general maintenance needs and/or the need of "empty nest" elderly to relocate to specially equipped housing accomodations). Extension has a role in relating housing needs/housing planning and delivery of "housing services" to the broader realm of comprehensive land use planning and integration of physical and social service systems.

2. There is a need for UW-Extension to "plug into" the evaluation of DILHR codes under the new program of state codes on 1-2 family housing and to assist (educationally) DILHR and local interests in implementation of this program. There continues to be a need for more educational programs in the housing area. Particularly with the increase of mobile homes, programs should deal with such questions as: the role of mobile homes in meeting community housing needs, the suitability of mobile home housing, the equity of their taxation, their impact on municipal costs and revenues, and standards for mobile home construction, mobile home parks, and mobile homes on individual sices.

M. Transportation

Transportation has played a large part in Wisconsin's growth and has had a tremendous impact on land use within the state. Transportation accessibility to a great extent has governed where people live and how land is used, for population tends to follow the location of major transportation routes, thus intensifying land development. As Wisconsin faces problems generated by an expanding population and extensive land use in many areas of the state, along with insufficient population and under-utilized land in other parts, the need for the protection of natural resources and for integration of transportation needs into comprehensive resource planning has become increasingly apparent.

Total transportation demands have grown steadily. At the same time, major changes have occurred in the transportation network of the state and nation. In Wisconsin, as elsewhere, the automobile has played an ever-increasing role in rural and urban land use patterns. Land use problems have arisen not only because of new highway construction, but also because unplanned or unregulated development occurs along and near highways, particularly at highway interchanges.

Other transportation modes have generally been neglected. Abandonment of cross-lake ferry services between Kewaunee, Wisconsin, and Frankfort, Michigan could jeopardize rail lines serving east central and central Wisconsin. Wisconsin's ports have long been neglected as a transportation system component. Also, rail line abandonment and the shift of freight and passengers away from railroads has resulted in serious problems for many Wisconsin communities in need of economic growth and has added additional growth pressure in areas that can ill afford it.

The energy crisis has shown the United States that oil supplies can no longer be taken for granted, and has stimulated increasing citizen and governmental interest in a more efficient, economical, and balanced transportation system. Wisconsin recognized the necessity for a balanced approach in transportation when a state Transportation Planning Council was created within the Department of Transportation in 1972. The Council was charged with the responsibility to 1) develop a comprehensive multi-mode transportation plan for Wisconsin; 2) initiate planning techniques and procedures that will enable the public to become an active partner in the long-range planning of Wisconsin's transportation system; 3) extend the present highway-oriented partnership of state and local government to cover all modes of transportation; and 4) recommend ways and means to develop a truly balanced transportation system to meet the needs of the state and its people. In 1976, an Advisory Council was created, made up of citizens and other state agencies to assist the DOT Council in formulating a multi-modal transportation plan.

The long-range transportation planning goal is to develop, adopt, and maintain a basic all-mode transportation plan to meet rural, urban, metropolitan, and state needs for the next twenty years. Transportation modes that will receive future consideration include inter-city transportation, motor carriers, bikeways, air passenger and freight service, water cargo service, rail-auto ferry service, pipelines, and urban transportaion.

To be effective, this planning approach should be comprehensive, taking into account not only transportation and engineering-related aspects, but also the potential adverse environmental impacts, the subsequent changes in land use patterns, and the social and economic effects that will result from the creation of new transportation corridors.

Sources of Public Assistance		Clientele
University	Agency	1. Motorists
1. URPL	1. DOT	2. Passenger/freight carriers

University	Agency	Clientele
2. Ag Econ	2. DLAD	3. Special interest groups (e.g. AAA)
3. GNHS	3. RPC's	
4. LA	4. SPO	

Needs

Materials which outline the need for balanced transit systems and the necessity for changing the use of existing earmarked funds for highways, finding new revenue services, or continuing with the existing services.

N. Forest Land Planning

Wisconsin has a rich natural resource in its forest land. Forests protect our soil and watersheds, and provide the land for over 40% of the state's recreational space. Trees oxygenate and cool the air, buffer the sights and sounds of our growing population, and provide a renewable supply of wood for more than 5,000 items.

Because of these many functions, planning for the wise use of the state's forests is an important task. In the late 19th Century, Wisconsin learned via experience, that a lack of planning in using forest lands had disastrous results. Early logging activity in the state brought about many problems due largely to the lack of planning. Stands of virgin pine were logged off from 1880 to about 1910. By 1900-1910, most of the better stands were cut, and the people who depended on forestry became unemployed. In addition, many settlers came into these logging areas to farm--with the hope that the plow would follow the axe as it had in Ohio and Indiana. But the soil and climate of much of northern Wisconsin were not well suited for agriculture, and farming was difficult even under the best economic conditions.

Bad economic conditions proved disastrous for many of the northern farmers and much of this cut-over land remained open in brush and forests. Forestry was hindered by severe fires, the lack of mature trees to harvest, and the property tax which had to be paid, even though there was no income from the land. As a result, cut-over lands became tax delinquent and were abandoned. Counties and local units of government were in serious financial difficulties.

Because of these difficulties, the State Legislature passed several laws which helped to alleviate the situation. The legislature enacted the private and county Forest Crop Laws in the late 1920's. The County Forest Law authorized counties to acquire tax delinquent land and manage it for forestry purposes. It was passed to help the counties restore the cut-over lands to productive use, to help generate revenue for the county government through forestry, and for state payments to assist in forest management and local government operations.

In 1953, the State Legislature passed the Woodland Tax Law which was intended to provide tax relief for owners of woodlands and to encourage good forestry practices for the production of timber and other forest products. As amended in 1976, the law provides tax relief to the woodland owner who enters into contract with the DNR. To qualify, the woodland must be at least ten acres, but less than 40 acres, must be well-suited for growing timber, and must be used for forestry purposes. This land can only be accepted into the program after the DNR has inspected it and agreed that it meets the program requirements.

The landowner agrees to manage his woodlot in accordance with prescribed forest practices and to prohibit grazing and burning in the woodlot. The owner must also agree to follow a management plan approved by the DNR for the property. The woodland is exempt from general property taxes and in lieu of the property tax, the landowner pays 40¢ per acre to the local taxing district. This contract is in force for 15 years, even if the land is sold to another owner. The contract can be renewed at the end of the period for another 15 years if the owner desires and the DNR agrees. If the owner wishes to withdraw the land from the program before the end of the 15-year period, a penalty payment is made and the lands will again be liable for normal property taxes.

In fiscal year 1973-74, slightly over 2.25 million acres of county forests yielded $1.06 million in revenues to the 28 counties with forestry programs. The outlook for the future is good, with forests continuing to mature and prices for lumber and wood products increasing.

Educational challenges for Extension in forest land use planning can be related to our "clientele": forest land owners--resident and absentee, direct forest land users (who aren't owners)--hunters, loggers, hikers, pulp cutters, campers, maple syrup producers, and the "indirect" users--mostly urban citizens who do not use the forest lands directly, but benefit from the protection of the watershed, from oxygen production, and from climate amelioration, and from the many wood-based products derived from tree crops: the daily newspaper, lumber and plywood for buildings and furniture, rayon for tire cord and clothing, plastics for phonograph records and photographic films, and many more.

Forest users are demanding increasing use for the special benefits each considers most important, to the exclusion of other equally "legitimate" uses--all from a diminishing forest area. Our challenge with the group is to teach understanding of the finiteness, renewableness, and multiple-benefit nature of our forest resources.

The indirect users are farthest from the forest. They have lost the connection between all of the benefits they receive and the source of those benefits. They consider a forest as a static group of trees: if a tree is harvested, the forest is diminished irreparably. Our challenge with this largest of all clientele groups is to teach the connections between the benefits and the sources. All educational channels are being used: mass media, publications, meetings, field days, demonstrations, exhibits. Special efforts are being made for each group: 1) Forest owners - establishing lists of owners by counties of ownership and of residences, winter conferences in urban centers, and fall field days around the state. Development of the twelve present Demonstration Forests, plus additional ones in each major forest type, as self-learning woodlands and for periodic demonstration days. A series of fact sheets, on ecology, silviculture, management, and the many "subsets" of each: thinning, TSI, regeneration cuts, forest land taxes, etc.; 2) Forest Users - the conferences, field days, and fact sheets, plus radio/news items about the finiteness, renewableness, and multiple-benefit nature of our forest resources; 3) Indirect Users - a radio/news (and, if funding, a television) **series** on how benefits are connected to the forest. For example, how a tree becomes a bundle of newspapers.

Sources of Public Assistance

University

1. Ag Econ
2. Forestry
3. GNHS
4. IES
5. UW-GB **Regional Analysis**
6. UW-S Pt

Agency

1. DNR
2. SCS
3. USDA-Forest Service
4. EPA

Clientele

1. Forest owners
2. Forest users: hunters, recreationalists, maple syrup producers, campers, hikers, pulp cutters
3. Local officials

Needs

1. There is a need for more informational materials/programs and data on the various uses of private and public forest lands in the state. At the present time, data is incomplete in delineating what forest lands are intended for business, profit, investments, wood crop, aesthetic, or recreational use. Hence it is difficult to develop comprehensive planning for Wisconsin's forest lands.

2. With the increasing number of seasonal dwellings being erected in forest regions, the hazards of forest fires increases. Land use planning is important to insure that recreational needs are met, while at the same time avoiding the problems of accidental fires caused by seasonal dwellers especially in high fire hazard areas.

O. On Site Liquid Waste Disposal

Many home sites in Wisconsin are out of reach of public sewers. As a result the homeowner must install an acceptable waste water disposal system on their own land. The conventional septic tank-soil absorption system has been a satisfactory method of disposal for many homeowners when properly designed, installed, and maintained. However, to use such a system, the soil in which it is installed must comply with specified State standards. By these standards, only about 50% of the total land area in Wisconsin has soils suitable for the conventional septic tank system. In the past, land use planners, and state, county, and local officials have used these soil limitations to plan and control land development. Presently, new technologies are being developed, such as the "mound or fill system" which may prove to overcome these limitations. At the present time an experimental, on-going, on-site liquid waste disposal program is being undertaken under the joint auspices of the UW-Extension Small Scale Waste Management Project and the Wisconsin Department of Health and Social Services.

A direct result of these new technologies will be the opening up of vast amounts of Wisconsin's land to development and opportunity for correcting many failing septic tank systems. Thus, the introduction of new on-site waste disposal technology raises questions about land use and land development. The potential ramifications of these new technologies means that more effective planning, citizen participation, and land use controls are in order so that an orderly process of development occurs on lands which formerly were not suited for development.

Sources for Public Assistance		Clientele
University	Agency	
1. IGA	1. DNR	1. Home owners
2. SWCU	2. DHSS	2. Developers

University	Agency	Clientele
3. URPL	3. SWCD	3. Local officials
4. ERU	4. Local planning officials	4. Planners
5. SSWMP		
6. GNHS		
7. Ag Eng		
8. Soil Sci. Department		
9. UW-Madison Bacteriology Department		

Needs

1. Maps showing lands which may be suitable for development using new on-site waste technologies.

2. Current information on state regulations regarding use of new technologies.

P. Land Use Adjacent to Shoreland

Land areas near water bodies are undergoing major changes with regard to land use. In many of these areas, there has been a great increase in the construction of developments--generally water-based--to meet the seemingly insatiable demand for water-oriented recreation and home sites. These developments are essentially new unorganized communities. They have enormous social, legal, economic, and environmental impacts on the area, and pose problems having both rural and urban dimensions.

Conflicts over land use in these areas has been frequent between development and non-development forces. Also, the use of the water resource itself is often a point of controversy among the residents near the lake due to such conflicting recreational activities as power-boating, water skiing, fishing, sailing, canoeing, swimming, etc.

Proper planning for land use adjacent to the State's lakes and rivers is essential to minimize these detrimental impacts and conflicts that can result. Wisconsin has done much within the last several years in the planning and preservation of this land-water interface, through such activities as passage of the Shoreline Zoning Regulations and Wisconsin's Lake Management Law, and the classifying and setting aside of several Wisconsin streams as being "wild and scenic waterways". However, more activity will be needed in this area in the future, as recreational and second-home site demands continue to increase.

Sources of Public Assistance		Clientele
University	Agency	
1. ERU	1. DNR	1. Reparian home owners
2. LA	2. DHSS	2. Recreationalists
3. URPL	3. SPO	3. Environmentalists

University	Agency	Clientele
4. IGA	4. CZMP	4. Developers
5. IES		5. Local governmental officials
		6. Farmers

Needs

1. Materials documenting inadequacies in the existing program.

2. Explanations regarding the non-conforming shoreland use and illegal structures such as boathouses.

Q. Settlement Patterns and Public Services

The placement of urban/suburban land uses in formerly farming areas typically results in a demand for increased public services. The extent to which the demand will be acted upon depends, in part, on the problems of newcomers. The cost of providing the services (and cost-efficiency) depends upon where the newcomers are situated in relation to each other and to established urban areas.

The connections between settlement patterns, demands for services and costs and efficiency of those services have long been recognized. In Wisconsin, the connections have been documented and quantified, principally in the work of SEWRPC (1966 Master Plan) and the State Planning Office (1975 report).

Recently, we have seen more public alarm about the connections. Probably alarm is arising in more people's minds because times are tough economically (especially for farmers with high debt loads and wildly fluctuating weather and price conditions and generally increasing property taxes) and because changes in State revenue distribution systems take away (in many jurisdictions) the old cushion of greater tax yields which we thought to equal (or, at least, camouflage) the rising costs from new development.

As a consequence, the general public and local bodies are much more open to critical examination of efficiencies in service delivery as affected by timing and locating of development.

Sources of Public Assistance		Clientele
University	Agency	
1. Ag Econ	1. SPO	1. Local citizens
2. URPL	2. PSC	2. Local officials
		3. Developers

University	Agency	Clientele
3. IGA	3. DNR	4. Utilities
4. Rural Soc	4. DLAD	
5. RRC	5. DOT	
	6. RPC's	

Needs

1. More research is needed on determining the costs (and incidence of those costs) over lifetime periods for services required by major land use changes.

2. Work is also needed on "values" questions. Obviously development patterns that pay in huge amounts and draw little are good and those that are largely draining on public budgets are bad. But in between, fall most developments--somewhere on the negative side over the short haul. Should we be striving for break-even or "profit" on all land uses? Is this a goal per se? Similarly, what level of inefficiency from scattered sprawl development do we accept as a feasible "price" for other advantages inherent in the sprawl developments?

3. Materials dealing with the proliferation of local governmental units and the need to develop public services in a planned and cost-efficient manner.

R. Soil Erosion

Within the last several years, soil erosion and sedimentation control has emerged as a major issue in both the urban and rural community. The present management of land for agricultural purposes, the rapid shift in land use from agricultural and rural to non-agricultural and urbanizing uses, changes in farm enterprises, operations, and ownership, construction of housing, industrial and commercial developments, streets, highways, recreation areas, schools, public utilities and facilities, the denuding of land of its vegetative cover and top soil and other land disturbing activities have accelerated the process of soil erosion, runoff, and sediment deposition to the adverse effect of public health, safety, and general welfare. Besides the substantial loss of good top soil, the resulting runoff causes erosion and results in sedimentation which can destroy natural wildlife and habitat, muddies streams and silts in lakes, reservoirs and dams, causes flooding, and is considered a major pollutant.

The Federal, State, and local government have joined forces in efforts to abate this problem of soil erosion. Numerous programs involving soil conservation practices have been initiated throughout the state. With passage of Public Law 92-500 the water pollution problems of soil erosion are beginning to be addressed. Under Sections 108 and 208, Federal/State dollars have been provided for research and planning and will continue into the future in finding ways to abate this water quality problem.

Other programs supporting soil erosion control include the BSWCD chapter 92.20 programs providing financial assistance to SWCDS, the Federal P2 566 program providing watershed protection and development funds, and the Resource, Conservation and Development program providing federal assistance to SWCD's for program acceleration. Six counties to date (with other under consideration) have established county cost-share programs with landowners through their SWCD's in order to provide incentives for conservation work.

As the state moves towards implementation of 208 planning (discussed later) additional support will be a necessity in order to obtain an acceptable approach to establishing conservation practices on private lands, especially farm lands, which go beyond economic returns to the landowner, for the purpose of achieving water quality goals.

Soil and Water Conservation Districts develop long-range and annual plans for managing soil and water and related resources. Long-range and annual plans enable these special purpose districts to carry out their responsibilities. This planning effort involves input from citizen committees representing town and county governments; agencies including UWEX, SCS, DNR, ASCS, FMHA, and BSWCD; and others such as regional planning commissions and conservation organizations.

UWEX as the educational area of the District has a lead role in these planning efforts.

To adequately resolve the problems of soil erosion, it will take both the effort of local communities to organize erosion and sediment control programs along with the continual research and developmental efforts of Federal/State agencies.

Sources of Public Assistance

University

1. SWCU
2. Water Resources Center
3. Soil Science
4. Ag Eng
5. ERU

Agency

1. SWCD
2. BSWCD
3. DNR
4. SCS
5. ASCS
6. USCS

Clientele

1. Local Government
2. Farmers
3. Other landowners
4. Developers

Needs

As "208" planning advances, educational programs must be developed on new approaches to managing soil and water to minimize impacts on surface water quality and the regulatory processes associated with both point and non-point area wide water quality management processes.

Z. Specially Created Institutional Arrangements Dealing With Land Use Planning

1. Regional Planning Commissions.* Section 66.945 of the Wisconsin Statutes, enacted in 1955, authorizes the creation of regional planning commissions (RPC). This law was passed in response to the recognized need for a planning and coordinating agency operating in a geographical area larger than the limited areas of county and local units, and smaller than a state's boundaries. RPC's can contribute substantially to the better handling of many inter-local problems that cannot be dealt with satisfactorily by the local units acting separately. A well-staffed RPC can take advantage of economies of scale in doing competent planning under policy direction of elected officials and citizen members of a commission. With an RPC, the people of a region can have the organization and opportunity to develop a genuine consensus about their common interests and goals.

RPC's are formed by the governing bodies of a group of counties and/or municipalities petitioning the governor to create a commission encompassing a designated area. If the local governing bodies representing over 50 percent of the population and equalized property valuation within this designated area consent to its formation, the governor may create the RPC by an executive order. Any local governing body (county, town, village), by a two-thirds vote, may elect to withdraw from the new RPC within ninety days after official formation of the RPC. After that time, a county or local body may withdraw by a two-thirds vote at the end of a fiscal year.

The Statutes specify RPC functions as follows: making studies and preparing advisory plans; making and adopting an advisory master plan for the development of the region; acting as an advisory planning assistance and coordinating agency for local programs; making advisory recommendations in response to certain referrals by local governments; by contract, making special studies for and giving advice to local units concerning land use, thoroughfares, community facilities and public improvements, economic development and related development; and publicizing purposes and findings.

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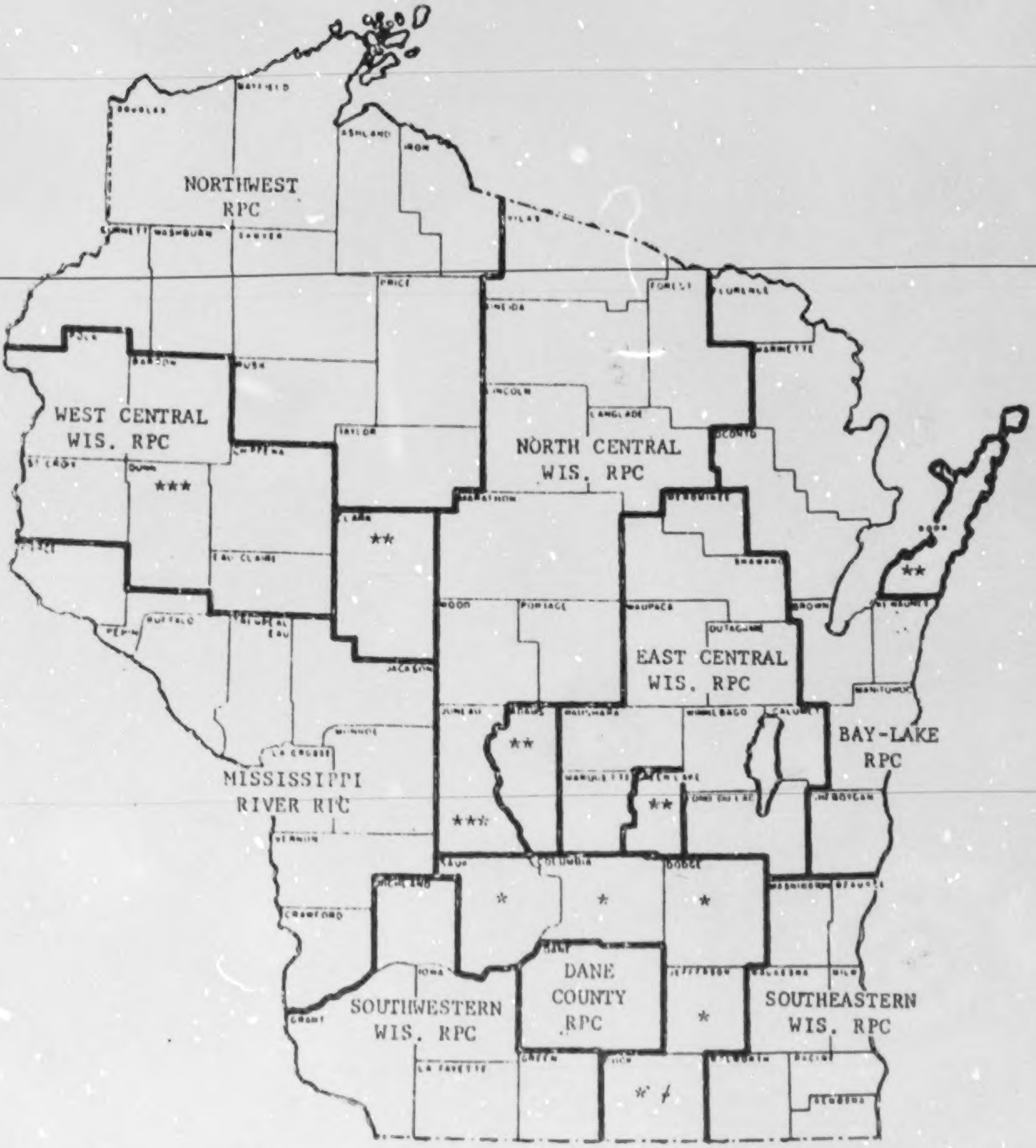
*Narrative on RPC's adapted from Regional Planning in Wisconsin: Next Steps? Fred A. Clarenbach, May, 1976.

Nine RPC's currently are organized in Wisconsin, serving 67 of the state's 72 counties. The RPC's vary in age from 17 years (Northwestern Wisconsin RPC formed in 1959) to 3 years (North Central Wisconsin RPC formed in 1973)(see map). The number of counties represented within these RPC's vary from a one-county commission (Dane County) to a ten-county one (Northwestern). Most of these RPC's have similar membership requirements. Each county is represented by three appointed members, one of whom is either the county board chairman or appointed by the county board, and two are appointed by the governor from a list submitted by the county board. The number of members on each commission varies from 11 to 34.

The early years of the RPC generally emphasize the collection and analysis of data concerning natural resources, land use, population, economic base, and transportaion and utility systems of the region. For the establishment of data systems, preparation of basic maps, and the preparation of basic descriptive and analytical reports are an essential foundation for the main task of preparing regional plans. Once a satisfactory regional plan has been devised, the RPC will then focus increasing attention to the promotion of plan implementation along with local planning assistance within the region.

It should be stressed that the role of these RPC's is advisory; the local units often "tap" the RPC's informational, research, and planning activities that are inter-local in character, the findings, plans, and recommendations that the RPC's develop become part of the local governmental units' data base from which they make the final decision to use and/or implement the RPC's proposals.

MAP I. REGIONAL PLANNING COMMISSIONS IN WISCONSIN, JANUARY 1, 1976


NORTHWEST RPC
WEST CENTRAL WIS. RPC
NORTH CENTRAL WIS. RPC
EAST CENTRAL WIS. RPC
BAY-LAKE RPC
MISSISSIPPI RIVER RPC
DANE COUNTY RPC
SOUTHWESTERN WIS. RPC
SOUTHEASTERN WIS. RPC
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* ≠

* **Never** in any RPC.

** Withdrawn: Clark from West Central; Adams from North Central; Green Lake from East Central; Door from Bay-Lake.

*** County Board of Supervisors has voted to withdraw (effective 1/1/77).

* ≠ Member of Rock Valley Metropolitan Council (with Boone and Winnebago counties in Illinois).

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At the present time, the RPC's are undergoing intensive study. The Department of Local Affairs and Development recently commissioned a study on the RPC's with the intent of making recommendations for improving and clarifying the role of the RPC's in Wisconsin. (Regional Planning in Wisconsin: Next Steps? Fred A. Clarenbach, May, 1976.)

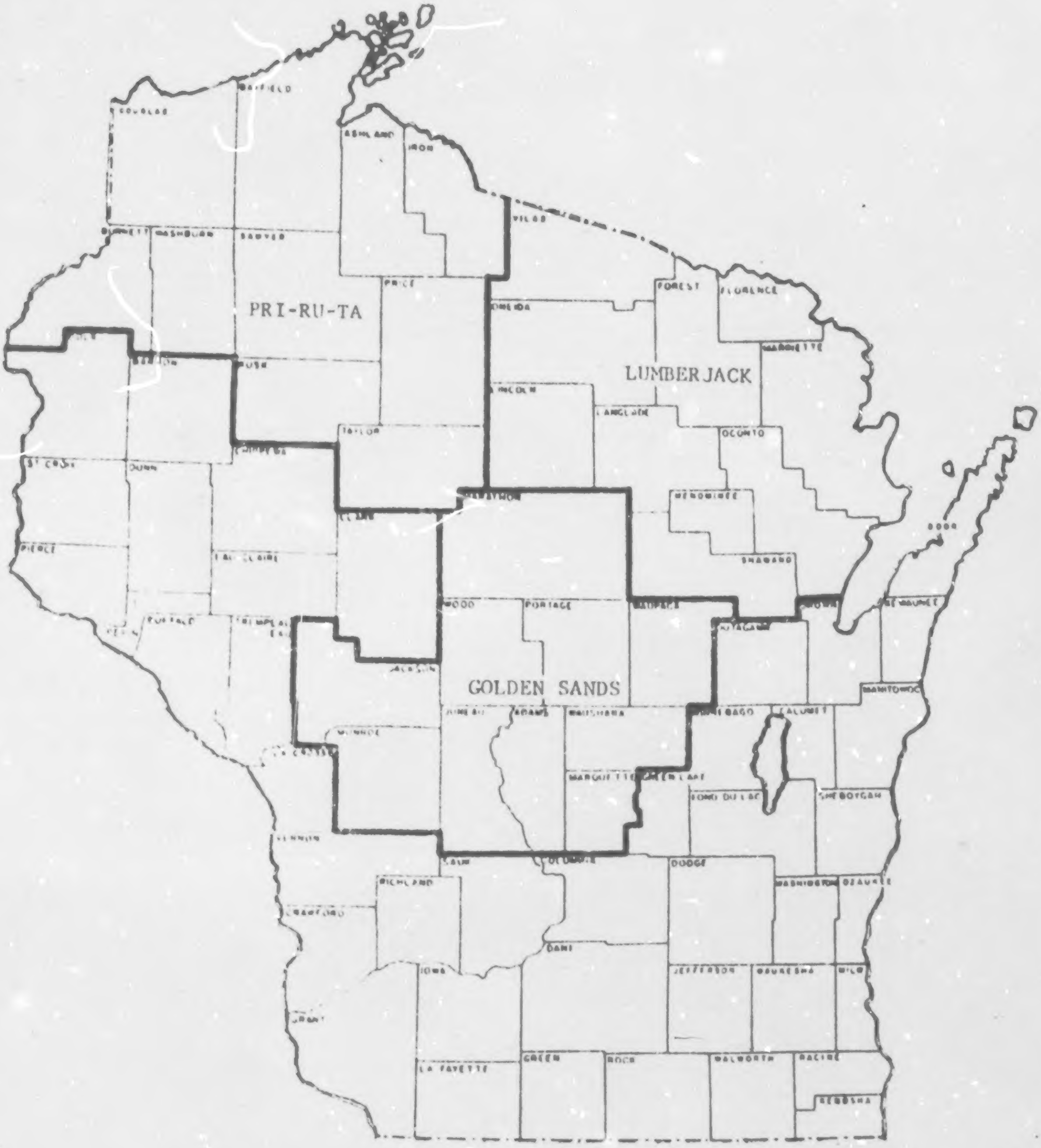
The Assembly Subcommittee on Municipalities has also been studying the role and function of RPC's. The Subcommittee will present its conclusion and recommendations to the 1977 Legislature. The report, Re-evaluating Regionalism, November 1976, is available from the Assembly Committee on Municipalities.

2. Resource Conservation and Development Projects. The Resource Conservation and Development program of the U.S. Department of Agriculture was originally authorized by the Food and Agriculture Act of 1962. Leadership responsibility for the program is assigned to the U.S. Soil Conservation Service, but other agencies of the Department of Agriculture (including the Forest Service, the Extension Service, and the Economic Research Service) contribute funds and services for projects under the program.

In Wisconsin, three RC&D Projects are in operation: Pri-Ru-Ta in the Northwest, Lumberjack in the northeast, and Golden Sands in the central part of the state. Each project covers an area of ten counties (see map). Pri-Ru-Ta was established in 1964 with three counties (Price, Rusk, and Taylor) and was expanded to the present ten-county area in 1967. Lumberjack was established in 1969 and Golden Sands in 1974. Five other areas in the state have applied for designation as RC&D project areas, but the applications are still pending; only the ten east central counties have not applied for designation.

The Pri-Ru-Ta Project serves as a good example of the kinds of administrative arrangements and participation in the projects. The supervisors of the Soil and Water conservation District of each of the ten participating counties (who are also the agriculture committee of the board of supervisors) select one of their number to sit on the Executive Board of the RC&D project. This ten-member Executive Board selects a smaller Executive Committee for the conduct of current business. In addition, three "Division Boards" (one Division has four counties and two have three counties each) have been created. Finally, the "Measure Sponsors" (who may be individuals, corporations, municipalities, or other qualified organizations) are a basically important part of the system.

MAP 7. RESOURCE CONSERVATION & DEVELOPMENT PROJECTS IN WISCONSIN, JANUARY 1, 1976


PRI-RU-TA
LUMBERJACK
GOLDEN SANDS
DOUGLAS
BAYFIELD
ASHLAND
IRON
VILAS
BURNETT
WASHBURN
SAWYER
PRICE
ONEIDA
FOREST
FLORENCE
MARINETTE
BARRON
RUSK
LINCOLN
LANGLADE
OCONTO
TAYLOR
CHIPPEWA
ST CROIX
DUNN
MARATHON
MENOMINEE
DOOR
CLARK
PIERCE
EAU CLAIRE
SHAWANO
WOOD
PORTAGE
WAUPACA
BROWN
KEWAUNEE
PEPIN
BUFFALO
TREMPEALEAU
OUTAGAMIE
JACKSON
MANITOWOC
JUNEAU
ADAMS
WAUSHARA
WINNEBAGO
CALUMET
MONROE
LA CROSSE
MARQUETTE
GREEN LAKE
FOND DU LAC
SHEBOYGAN
VERNON
SAUK
COLUMBIA
DODGE
RICHLAND
WASHINGTON
OZAUKEE
CRAWFORD
DANE
IOWA
JEFFERSON
WAUKESHA
MILWAUKEE
GRANT
LA FAYETTE
GREEN
ROCK
WALWORTH
RACINE
KENOSHA

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Among the types of projects listed in Pri-Ru-Ta's annual plan of operations for the fiscal year 1976 are: forest recconaissance surveys, forestry services to private landowners, acceleration of timber sales on county forests, roadside erosion control, planning for watershed improvement measures, printing and distribution of area soils reports, flood control studies in lake areas, preparing village flood prevention plan, fish and wildlife habitat development, inventory and planning for public access to lakes and streams, 4-H camp facilities improvement, city campground facilities improvement, city marina planning, and harbor recreation area planning and coordination.

The listed project sponsors included Soil and Water Conservation Districts, County Forestry Committees, cities, villages, towns, and a county 4-H leader's association.

Among the federal, state, regional and local governmental agencies contributing technical assistance, other services, or financial support were the Soil Conservation Service, Forest Service, Farmers Home Administration, Fish and Wildlife Service, Corps of Engineers, Economic Development Administration, Wisconsin Department of Natural Resources, Wisconsin Department of Transportation, University of Wisconsin-Extension, Northwest Regional Planning Commission, Soil and Water Conservation Districts, counties, cities, and towns.

Agency personnel and local officials have established lines of informal communication which considerably facilitate the tasks of project development and coordination and make the work of the formal boards-and-committee organization of the RC&D less onerous. However, roles and functions have also been negotiated and formalized. As an example, the following excerpt outlines the roles and functions of UWEX in the Pri-Ru-Ta RC&D area as cited in the 1976 Annual Plan of Operations: responsible for information and education activities of Headwaters Pri-Ru-Ta and provides assistance to communities and groups in program planning and development. 1) reports Pri-Ru-Ta activities via newspaper, radio, television, and other mass media; 2) assists other agencies, organizations and project sponsors in publicizing their RC&D activities; 3) assists in organizing and conducting meetings, panels, tours, and other related RC&D activities; 4) provides liason between local project sponsors and various resource development programs; 5) assists local sponsors in planning RC&D measures. University of Wisconsin-Extension assists the project through its area staff by working with County Agents and other county officials and agencies, sponsors, local groups and individuals toward: 1) increased knowledge and understanding of RC&D opportunities in developing the natural resources within the project area; 2) developing leadership within the different communities; 3) teaching and training leaders in the group action process; 4) increasing the awareness of the need of long-range resource planning; 5) affecting learning through new concepts, ideas and attitudes to increase the capacity of individuals; 6) working cooperatively with the project coordinator in providing project sponsors and supporting groups with information concerning their responsibilities in planning, design, operations and maintaining measures essential to satisfactory progress in the project.

3. Economic Development Districts. The Economic Development District program of the U.S. Department of Commerce was authorized by the Public Works and Economic Development Act of 1965. Administrative responsibility for the program is assigned to the Economic Development Administration. At the present time, only one district has been established in Wisconsin. The area includes the ten counties of Northwest Wisconsin (Ashland, Bayfield, Burnett, Douglas, Iron, Price, Rusk, Sawyer, Taylor, and Washburn). The Northwest Wisconsin Regional Planning Commission received notice of this District designation in mid-April, 1973, upon completion and approval of a First-Stage Overall Economic Development Program (OEDP) report. Several other Wisconsin RPC's are currently working toward the District designation.

To reflect its District orientation during the authorization process, the NWRPC changed its name to Northwestern Wisconsin Regional Planning and Development Commission. However, a recent interpretation by the Wisconsin Attorney General's office resulted in the removal of the term "Development" from the Commission's title in the interest of statutory conformity.

One of the important eligibility requirements for District designation is that the development organization be broadly representative of area social, economic, and political groups. To comply with these guidelines, the NWRPC amended its by-laws to include more local officials, particularly officials from incorporated areas, and representatives of the Chippewa Tribe residing in N.W. Wisconsin. Under the amended by-laws, the General Commission Membership Body and the eleven-member Executive Committee were granted dual responsibility of serving as Regional and District Commissioners simultaneously.

The objective of the District designation is to assist in utilizing areawide, multi-county resources to create full-time permanent jobs for the unemployed or underemployed. The type of assistance available to meet this objective is limited to project grants for planning, staff salaries and other administrative expenses of the economic development organization, in this case NWRPC. The grants are made for a one-year period and are renewable. Matching provisions attached to the grants require that 25 percent in the form of cash and "in-kind" contributions be generated from non-Federal sources.

The existence of a ready source of non-Federal match through the tax levy provision of the Wisconsin Regional Planning Statute was one consideration in seeking District status through the NWRPC. Other primary considerations included: 1) a strong development orientation by the Commission from its inception: 2) the NWRPC's prior experience in more than a decade of multi-county activity and cooperation; 3) a desire to tie development grants as closely as possible to the planning function; and, contrariwise, the desire to enhance the effectiveness of plan documents by using District grants for implementation.

Among the types of District-related projects listed in NWRPC's overall work program for calendar year 1976 are: an annual update of the District OEDP document; planning assistance to the designated growth centers of Ashland and Superior; preparation of a softwood resource report with assistance from the Timber Resources and Wood Products Committee and the Wisconsin Department of Natural Resources; technical assistance for local grant applications as well as for planning related to industrial park siting throughout the region and the central business districts of two communities.

In its District activities, the NWRPC draws informally, from time to time and project to project, on various forms of technical and financial assistance from federal, state, areawide and local governmental agencies. In at least two areas inter-agency coordination is somewhat more formal and regular. The first is the District work that is on-going through the

Wisconsin DNR and NWRPC's Timber Resources and Wood Products Committee. The second is the designation of county University of Wisconsin-Extension Resource Agents from each of the ten-member counties as ex-officio members of the Commission.

The types of inter-agency coordination and cooperation currently existing between NWRPC and UWEX in the Northern District are similar to those stated earlier for the interface between Pri-Ru-Ta RC&D and UWEX. However, in the case of the Economic Development District program these relationships rest informally on patterns and practices that have evolved over time, rather than on formally agreed upon roles.

4. Coastal Management Program. Stretching for over 620 miles along Lakes Michigan and Superior, Wisconsin's Great Lakes coasts offer unique environmental, recreational, and commercial resources. Recognized as a sensitive but extremely productive biological habitat, Wisconsin's coasts are also the scene of a large portion of the state's economic activity.

Over 43% of Wisconsin's population lives in the 15 coastal counties, and thousands more are drawn to the Great Lakes each summer. A growing state population, rising affluence, increasing recreational demand, and concentrated economic activity are creating competing demands for use of the coastal area.

Motivated by the Federal Coastal Zone Management Act of 1972, Wisconsin's Coastal Management Program provides a planning process by which the state, local governments, and the public can decide whether, and how, to manage the state's Great Lakes resources. The Wisconsin program emphasizes three elements: 1) a strong commitment to public participation, 2) the establishment of a state-local partnership for policy-making and program development, and 3) an independently staffed state-level citizens advisory committee.

Members of the Coastal Coordinating and Advisory Council are the decision makers of the Wisconsin Coastal Management Program. Appointed by the Governor, Council members represent a balance of state and local interests which include seven state agencies, both houses of the Legislature, two University of Wisconsin programs, three regional planning commissions, and six county and municipal governments. The Council is charged to advise the Governor on the need for a coastal management program for Wisconsin, and to recommend a programmatic and organizational focus for such a program.

A state-level Citizens Advisory Committee, composed of representatives from a broad spectrum of public interests from the coastal counties, has the duty to monitor and review the activities of the Council and the program's development. Independently staffed through a UW-Extension specialist, the

Citizens Advisory Committee is free to critically examine the progress of the program. Committee recommendations, expressed through a vote on the Council, through participation in work groups and Council subcommittees, and through the staff person, have helped give the program direction while promoting greater public involvement.

The program is staffed through the lead agency (State Planning Office, DOA), participating state agencies, and the Committee's UWEX staff. In addition, each of the three regional planning commissions (NWRPC, BLRPC, SEWRPC) also have work responsibilities on a regular basis.

Each regional planning commission (RPC) also has a coastal advisory committee which consists of local officials, resource planning technicians,* and/or citizen representatives. These committees provide another link to local problems, perceptions and attitudes as they also evaluate all technical and policy directions of the program. They channel their recommendations through RPC representatives on the Council, the coastal RPC staff, and local members of the state Citizens Advisory Committee.

Wisconsin set out to examine the merits of participating in the voluntary Coastal Management Act through ad hoc inter-governmental committee which consisted of all interested state agencies and the three RPC's. This group determined that a development program which would study the Great Lakes resource would be valuable if it had: a) strong intergovernmental arrangements to insure coordination and participation, b) a strong emphasis on methods for public participation, c) a focus on the major Great Lakes issues facing the state, and d) work efforts which analyzed the issues and inventories supporting technical information. In June, 1974, Wisconsin received a federal coastal management development grant (Section 305 of the Act) for the purposes of studying the Great Lakes resource to determine the effectiveness of existing management tools and mechanisms.

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*County planners, UWEX agents, city managers or planners, etc., at discretion of RPC.

Now at the end of its second year in the development phase, the program has completed inventories of significant resources, land uses, and land use controls. Federal, state, and local management authorities have been identified and studied. Background studies on visible issue areas like shore erosion, lake levels, commercial port development, recreational impacts, power plant siting, and public access have also been completed.

After studying Great Lakes problems for a year, the Council (in January, 1976) began to focus its efforts on developing the substance and structure of a potential coastal management program for Wisconsin. Though not yet committed to implementing any program, the Council recently issued a position paper on the general subject matter, organization, and boundaries of a potential program which suggests the need for a strengthened state-local partnership for managing the Great Lakes resource.

Wisconsin's approach toward potential coastal management is two-fold. First, by relying on existing state and local authorities, the program's initial emphasis would be to seek improved coordination and more efficient delivery of existing governmental programs. Second, any future program would be based upon a strong and meaningful public participation.

The third year (October, 1976-October, 1977) has been devoted to refining the organizational and policy framework of a potential management program, should the state decide to proceed into implementation (Section 306 of the Act). Extensive public and technical review of all developments in the process is being encouraged through media activities, meetings to determine public concerns, public hearings, and ongoing efforts of the program's participants.

The program's tentative timetable (subject to amendment or termination due to key decisions along the way) requires development of guidelines and management alternatives and selection of a coastal management plan by spring of 1977. That plan will undergo final public hearing review. Based on the results of the hearings, the Council will advise the Governor whether or not the state should proceed. If both the Council and the Governor choose to proceed, an implementation (Section 306) grant application will be forwarded to the federal government.

The federal Office of Coastal Zone Management (OCZM) and all interested federal agencies will then scrutinize the plan to determine a) if it meets the Act's standards and conditions, and b) if it is consistent with their plans and programs (some federal actions must be consistent with adopted state coastal programs). After about a year of review, the OCZM will either accept or reject the state's proposal. If accepted, a state is then eligible to receive additional monies to implement its coastal management program.

Sources of Public Assistance

University

1. ERU
2. RRC
3. Sea Grant
4. URPL

Agency

1. DOA
2. DNR
3. DOT
4. DLAD
5. DBD
6. RPC's
7. Local planning

Clientele

1. Governor
2. Interest groups
3. Local officials/ state agencies
4. State legislature
5. Federal Office of Coastal Zone Management

5. **208 Planning**. The federal court interpretations of PL-92-500 resulting in non-point, as well as point source pollution control planning, and in statewide as well as designated area planning, has resulted in a major pollution control planning effort. While section 208 planning includes both point and non-point source planning, the emphasis has been on control of point sources.

The goal of 208 planning is to develop plans for control of pollution sources by November, 1978 (earlier dates for designated urban/industrial areas). These plans will identify implementing agencies, needed legislation, funding requirements, control techniques and other components for abatement of pollution sources. Public understanding, acceptance and input is necessary in order to develop a meaningful plan for control and to expect to successfully implement programs to support and carry out the plan. A strong and continuing educational program is needed to bring about the above objectives.

Primary planning responsibility lies with the Department of Natural Resources and the designated planning agencies. Cooperative working relationships in the form of agreements, memos-of-understanding and sub-contracts have been developed between these primary planning agencies and other agencies and units of government having related authorities and responsibilities such as the Board for Soil and Water Conservation Districts, Soil and Water Conservation Districts, Soil Conservation Service, and UWEX. Roles in public participation and other educational responsibilities need to be identified, clarified and supported.

The primary difference between non-point pollution control planning and previous soil erosion control work is the emphasis on water rather than only maintaining soil productivity.

Major decisions in the non-point field needed in this future include implementing agencies, regulatory approach, incentive payments, funding for technical assistance, level of water quality protection and time schedule. (See Section on Soil Erosion - IV-R)

Sources of Public Assistance

University

1. SWCU
2. Soil Science
3. Ag Eng
4. Water Res. Unit
5. ERU

Agency

1. DNR
2. RPC's
3. SWCD's
4. BSWCD
5. SCS
6. ASCS
7. USGS
8. EPA

Clientele

1. Local government
2. Citizens
3. Industry
4. Farmers
5. Developers
6. Youth

6. Extension's Role regarding "Regionalism" (Prepared by an ad hoc Extension faculty group concerned with "Regionalism".)

The fundamental mission of the University of Wisconsin system is: "to develop human resources to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses and to serve and stimulate society by developing, in students, heightened intellectual, cultural and human sensitivities, scientific, professional, and technological expertise, and a sense of purpose".

U.W. Extension's specific mission, as part of the U.W. system is: "to provide, jointly with campuses and centers, a program of outreach designed to bring UW-System resources to bear upon the needs and problems confronting the people and institutions of the state, and to coordinate the statewide program."

Extension uses an applied problem-analysis and problem-solving approach for bringing the findings of both basic and applied research to the people of the state. It utilizes a variety of specific methods including: participation in "pilot" or demonstration projects, short courses, workshops, seminars, publications, individual and group consultation. It cooperates with a variety of private organizations, individuals, other educational institutions, governmental units, groups and agencies in the pursuit of these objectives.

Extension Policy in Regard to Regional Planning

In keeping with the above definition of missions and roles, U.W. Extension has adopted the following policies with regard to regional planning in Wisconsin:

1. U.W. Extension supports orderly and efficient community development. Mechanisms for discovering, describing, and offering alternatives and recommending solutions to problems that cross governmental boundaries

(i.e., regional planning mechanisms of some type) are clearly needed to achieve orderly and efficient community development. Regional planning commissions in Wisconsin are a means of providing for multi-county plans and development.

2. There are appropriate roles for both regional and local planning. The development of effective and responsive regional programs requires both the parallel development of local planning programs and the interrelating of local and regional plans. Therefore, U.W. Extension will continue its educational role in helping local people develop strong local planning programs.

3. Many of the policies and programs of a particular regional planning institution involve essentially value questions subject to new knowledge, discussion, and debate. The function of U.W. Extension is not that of endorsement of the specific policies or programs of any particular regional planning institution, but rather that of education and organizational leadership assistance to communities.

4. People need knowledge if they are to have the ability to meaningfully control or influence decisions which may affect them individually or collectively. Therefore, Extension will continue to discharge its educational responsibilities to assist people in the state to:

(a) understand the need for community and regional planning;

(b) understand the concept of regional planning, the role of regional planning in society today, and its relationship to local community and to state and national planning and development activities;

(c) participate in the development and evaluation of regional policies, plans, and programs.

5. Given limitations of time, expertise, and financial resources, Extension must selectively choose those educational activities associated with regional planning in which it will become involved. While this must be

decided on a case by case basis, Extension's activities should not be duplicative. Those that are or can be provided by others and should be within the scope of Extension's educational mission. For example, if a community can obtain planning assistance services (as distinguished from educational services) from private consultants, state agencies, or a regional planning commission, these services will normally not be provided by Extension.

6. Extension must address itself to identifying timely issues for which formal planning is essential and the formulation of educational programs to provide knowledge on those issues. Some of these issues should be related to local planning mechanisms, some to regional planning and some to both. It appears that at this time, there should be particular emphasis on these topics:

(a) research and public education on the implications of joining or withdrawing from a regional planning organization. While it cannot be said with certainty at this time, it appears that some of the implications of withdrawing are: possible loss of access to technical planning services; loss of the opportunity to participate in making regional policies that will affect local areas; loss of some measure of local control or influence over state/federal policies and programs; short-run savings in governmental costs.

(b) the pros and cons of alternative forms for responding to regional (multi-jurisdictional) problems.

(c) methods for involving people in the processes of regional planning, including the development and consideration of alternatives prior to the adoption of regional policies and programs.

(d) providing for an interchange between the members of a planning commission and the people of the region on problems and needs to be dealt with by the commission and on the results of the deliberations and planning.

(e) helping people in local communities make use of regional data and plans in local planning and action.

Needs

The relationships of regional planning institutions to one another and to local planning and regulation need to be explained to citizens. An urgent task in the immediate future is to explain issues and alternatives regarding "regionalism" which will continue to be the subject of political discussion and debate.

V. How To Implement A Land Use Plan

A. Adoption of Plans

Once a plan and alternative solutions to land use problems have been identified and agreed upon, the adoption of a course of action by the legislative body and others involved in implementation may be relatively simple. In other situations, implementation may be complex and will require a substantial educational program for decision-makers. In any event, the process of plan adoption and implementation requires a carefully structured and sustained educational effort. There is strong evidence that in plan implementation, it depends, in large part, on public involvement throughout the planning effort, not just at the implementation stage.

Sources of Public Assistance

University

1. Ag Econ
2. URPL
3. IGA
4. UW-GB Regional Analysis

Agency

1. DLAD
2. SPO
3. RPC's
4. Local planning & zoning officers
5. Private attorneys
6. Planning consultant firms

Clientele

1. General public
2. Planning & zoning committees
3. Youth
4. Legislative bodies
5. Civic organizations

Needs

Case histories, developed by agents and specialists need to be developed outlining both successes and failures on plan implementation.

B. Regulatory Measures

The best time to prevent land use problems is before land development occurs and construction commences. In order to direct the development process, local people should understand basic land use regulations.

As the laws are written now, it is difficult to coordinate all of the regulations and controls. Town and county officials often complain of the lack of order in land use controls. The right hand often is unaware of what the left hand is doing. Some people are able to take advantage of the present fragmentation of authority. They prefer the lack of coordination. Developers can plan and initiate projects before local officials fully understand what will happen. The feelings and interests of local residents often are not considered. Under such circumstances, some landowners are able to turn a handsome profit by selling a piece of farmland or by pushing through a major development to the disadvantage of perhaps a dozen families in the area who then discover their views blocked, trees cut down, grading and runoff damaging their property, traffic and noise increased, strangers moving in and a rise in taxes.

The private decisions of a developer determine the final character of most projects. Developers can decide whether roads will follow natural contours, how much natural vegetation will be preserved and how structures will blend in with the surrounding landscape. Because developers work for profit and face a complex set of regulations and procedures, some may be concerned with meeting only minimum standards. On the other hand, some developers go well beyond minimum standards. Systems must be devised to encourage innovative developments and more cooperation among citizens, officials, and developers.

There are several ways in which local citizens and officials can guide the development process. Various types of controls are briefly mentioned below. Contrary to what some believe, controls often are not linked together. Each applies to certain circumstances and is applied under different procedures. If local officials and citizens desire land use changes to operate more smoothly, they must insist that governmental agencies coordinate land development rules. County ordinances will have to be integrated and certain land uses will have to be designated before the pressure of development occurs.

Many citizens are confused about the local government's authority in controlling land use and believe that planning, zoning, land platting and other controls are all connected. As a result, property owners sometimes feel that they have few rights over their own land. In general, this is not the case. It is true that individual land use procedures often are complicated and might involve considerable governmental delay. More often, though, problems result from no controls or from limited controls that address only certain types of activities, and thus do not correct general problems of development. To address broad issues of changing land uses, new approaches are required.

1. Zoning Ordinances and Subdivision Regulations. The zoning ordinance and subdivision code are primary tools for implementing land use plans. Once land is zoned, anyone constructing a building or any facility or making improvements in existing facilities, must obtain a permit as required by the ordinances. With subdivision regulations, anyone creating building lots under specified conditions must obtain various approvals of the subdivision plat according to the local subdivision ordinance. Perhaps more resources are available in UW-Extension and elsewhere on these topics than on any other implementing tool.

Sources of Public Assistance

University

1. Ag Econ
2. URPL
3. IGA
4. Law School
5. Extension Law

Agency

1. DLAD
2. RPC's
3. Local planning & zoning officers
4. Private attorneys
5. Private consultants

Clientele

1. Landowners
2. Elected local officials
3. Developers

Needs

Historically, Extension has been deeply involved in the actual preparation of ordinances and codes. As local governments and planning organizations increase their capability in this area, Extension should limit its activities to demonstration projects and new approaches to land use regulation. Also, Extension can serve as an information and interpretative and communications center for new approaches to land use regulation throughout the country. Such a service will be of value to specialists, county offices, planning bodies and regulatory agencies. In addition, Extension needs to provide additional resources for educational programs to improve the administrative capability of organizations which have the regulatory responsibilities.

2. "Specialized Codes." A variety of specialized codes and ordinances supplement the main tools of the zoning ordinance and subdivision control. Sanitary and housing codes, soil erosion ordinances, and building and mobile home codes are among the most common. As with other tools, there is a recognized Extension task helping people understand the usefulness of these devices, helping tailor specific language to local needs, educating the general public and assisting in administration and evaluation of code performance.

Sources of Public Assistance		Clientele
University	Agency	
1. Ag Econ	1. DLAD	1. Landowners
2. URPL	2. DHSS	2. Elected local officials
3. IGA	3. DNR	3. Legislative bodies
4. Law School	4. DILHR	4. Developers
5. Extension Law	5. RPC's	
6. SWCD	6. Private attorneys	
7. SSWMP	7. Private consultants	

Needs

Work is needed within UW-Extension on methods of streamlining state enabling laws under which these codes operate and on methods of streamlining local project reviews.

C. Tax Policy

The Wisconsin Constitution requires uniformity in property taxation, unless specific exemptions are approved through a constitutional referenda and by subsequent action of the legislature enacting a law providing for different rates of taxation. For example, more than 40 years ago, the state authorized lower tax rates for lands committed to forestry programs, and today, the Private Forest Crop program and the Woodland Tax Law can be used as an inducement to direct land uses into forest management.

Preferential tax policies have also been considered as an inducement to private property owners to preserve wetlands, agriculture lands, historic buildings, and the like.

Sources of Public Assistance		Clientele
University	Agency	
1. IGA	1. DOR	1. Landowners
2. Ag Econ	2. DA	2. Elected local officials
3. URPL	3. DNR	3. Legislative bodies
	4. DLAD	4. Developers
	5. SPO	5. Youth
		6. Citizens

Needs

The advantages and disadvantages of tax policies as a means of influencing land use, and alternative approaches require further elaboration.

D. Compensation

In general, the use of the police power (subdivision codes, zoning ordinances, etc.) prevents private property owners from using their land to the disadvantage of adjacent land owners, or the general public. Although the courts are generally interpreting the use of the police power in a more liberal fashion, there is a point where the values society is interested in protecting constitute a taking of economic rights enjoyed by a private property owner. Thus, governmental agencies are required to compensate the owner for the benefits which accrue to society. For example, a scenic vista may be destroyed by the erection of a highrise apartment building. To prevent the action, the local park commission may purchase from the owner the right to build the highrise apartment, permitting the owner, however, to develop single family residences. In other situations, a park commission or the Wisconsin Department of Natural Resources may wish to purchase the land outright for public purposes. Another approach is the temporary lease (for public hunting, for example) or purchase of the land and then leasing the land for certain restricted uses. Whatever the device, the basis for the action must be provided in the constitution and state legislative acts.

Compensation thus serves as a useful tool to influence land use by governments and state and federal agencies.

Sources of Public Assistance

University

1. Ag Econ
2. URPL
3. IGA
4. Law School
5. UW-GB Regional Analysis

Agency

1. DOR
2. DLAD
3. Local planning officials
4. DNR
5. DOT
6. SPO

Clientele

1. Landowners
2. Local officials
3. Citizens
4. Youth
5. State & federal agencies

Needs

The advantages and limitations on the use of compensation as a means of influencing and directing land use require further elaboration.

E. The Taking Issue

Use of the police power by government to restrict the uses to which privately-owned property can be devoted may give rise to constitutional challenges of the restriction. The problem arises at the point where the regulations so restrain the use of property and diminish its value as to constitute a "taking" for public use. Such a taking violates the 5th Amendment to the United States Constitution - (N)or shall private property be taken for public use, without just compensation" and a comparable provision in Art. I, s. 13 of the Wisconsin Constitution. While the United States Supreme Court has upheld restrictions on property by zoning - Euclid v. Ambler Realty, 272 U.S. 365 (1926) - it has also stated that diminution of value by use of the police power, beyond a certain point, becomes an exercise of eminent domain and compensation must be paid if the regulation is to be valid [Pennsylvania Coal Co. v. Mahon, 260 U.S. 393 (1922)]. Thus, there exists a possibility that resource protection legislation may be viewed by a court as being excessive and constituting a taking.

The most prominent Wisconsin case on this issue is Just v. Marinette County (1972), 56 Wis. 2d 7, where a county shoreland zoning ordinance, which prohibited filling shoreland wetlands without a conditional use permit, was upheld. The ordinance has been challenged on the grounds that it amounted to a constructive taking of property without compensation.

In upholding the ordinance, the court balanced the public's interest in stopping the destruction of natural resources against an owner's right to use his private property. In refuting the appellant's contention that the ordinance severely depreciated the value of his property, the court pointed out that the depreciation was based on the value if filled and not on its value in its natural state. Also, the restriction did not create a public benefit at private expense, but rather preserved natural resources from harm.

While the Just case is helpful in indicating that the court will consider more than economic factors in cases where the police power is used to curb destruction of natural resources, it may be somewhat limited in its application. The Just case is helpful in indicating that the court will consider more than economic factors in cases where the police power is used to curb destruction of natural resources, it may be somewhat limited in its application. The Just case involved wetlands adjacent to navigable waters; the shoreland zoning ordinance involved was adopted pursuant to the Water Resources Act of 1965 (Ch. 614, Laws of 1965). The court explicitly referred to the navigable waters trust doctrine, the interrelationship of the subject wetlands to navigable waters and the public's rights in those waters. It is possible that in those cases where natural resources were not connected to navigable waters, protective legislation and its effect on property values and property rights would be more closely examined.

Needs

Materials which explain the differences and the limits of the use of police power and the power of eminent domain.

F. Fee Simple

The most effective method that can be used to control land use is by acquiring "fee simple title" to the land. This merely means that all of the property rights of the land have been bought up by one party.

It should be observed that land ownership is a bundle of rights, rather than a single property right: each of these rights may be treated individually and separated one from the other. [Scenic Easements and "Mining rights" are good examples of this bundle of rights theory. Here the land owner sells part of his "rights" to another individual, but still maintains control/use of his surface property.] Public governmental bodies can acquire these property rights by negotiated price, gift, or eminent domain.

The power of eminent domain allows public agencies to condemn private land for "public purposes" through a formal procedure as long as "just compensation" is paid to the landowner for his property. In recent court cases, the concept of "public purposes" has become equated to "public benefits" so that courts will usually uphold any use of eminent domains in which it is demonstrated that a benefit to the public will result. On this point, legislative determinations of public benefit almost always are accepted as conclusive by the courts.

Although acquisition of "fee simple title" is the most effective control of land use, [in other words, the land that is desired to be under control is simply bought by the public agency] it has drawbacks which limit its potential to control land use. Essentially the chief limitation is that public bodies do not have the fiscal reserves to purchase all the property that they would wish to control. Thus, this method is ineffective in providing a uniform, comprehensive program for land use control. As such, public agencies are increasingly using "less-than-fee" property acquisition devices as useful tools for implementing land use plans and controls within their jurisdictions.

Examples of some of the less-than-fee devices most often used are:

1. Saleback - The full fee simple is purchased or condemned, and then the land is resold by a quit-claim deed. The deed reserves those interests desired such as the woodlot, absence of billboards, etc.

2. Leaseback - The full fee simple is purchased or condemned, and then the land is leased, usually for a long term, consistent with the use desired. The lease is subject to the desired restrictions.

3. Lisence - The right to enter for specified purposes is purchased. The purposes may be hunting, wildlife observation, hiking, or camping. The landowner never conveys title. A later sale of the land may extinguish the lisence however.

4. Development rights - The right to convert the land to more intensive use is purchased.

5. Restrictive Covenants - An agreement restricting the use to which the land may be put. The agreement is drawn so that the covenants run with the land, i.e., are binding on all future purchasers with notice of the agreement.

6. Easements - An interest in the land is purchased, only the rights desired are obtained by "grant" of easement or conveyance or by deed. Recording the deed binds all future grantees. Easements are discussed in detail in the next section.

Needs:

Materials which explain the uses of the power of eminent domain.

G. Easements

Easements can be defined as the purchase of something less than all rights of the land. The owner of the "fee simple title" sells or donates some of his "bundle of property rights" to some other person or agency. Basically, the easement is simply a right [contracted by law] to use another man's property for some specific purpose [e.g. right-of-way easements] or to prevent him from using his property in some specified manner.

Other than the rights restricted and agreed upon by the easement, the owner of the land continues to have all the rights and benefits of the land. The easement does not transfer any title to the land. Easements can be contracted for a specified length of time or for perpetuity. Easements are binding on all future owners of the land who have notice of the encumbrance. Under the law, once the easement is officially recorded, any future purchaser of the land is considered to have had constructive notice of this restriction and is subject to it.

Generally easements are divided into two types, affirmative and negative. An affirmative easement is a limited right that requires the landowner to permit certain uses of his land by someone else: the right-of-way easement is a good example. A negative easement is a right which prevents the landowner from using his land in specified ways. Some examples of affirmative easements are:

1. Hunting and fishing rights - it is a limited right for the public to use privately owned land for hunting, fishing, hiking, or camping.
2. Highway easements - this may be done as an alternative to condemning the land in fee.
3. Flowage easements - this is the right to flood privately owned land, either temporarily or permanently. The Mississippi River flood control project has held, for many years, emergency spillway rights; i.e. land left in private ownership subject to the right to flood in order to ease pressure or levees in time of emergency.

4. Aviation corridor easements, plus trajectory and electronic easements.

5. Conservation easements - hunting rights, right to enter and manage waters, right to access to lake, right to insist that cover and other habitat remain undisturbed (a negative right), right to fish from private land, etc.

There are many kinds of negative easements also; these may include:

1. Easements against development - for example, the right to prevent any development in a flood plain or to protect wetlands from drainage and agricultural use. [This device is also used to protect the wetlands against agricultural development. A saving clause may be included to allow normal farming practices at times when these areas are naturally dried out. Usually included in such an easement are a prohibition against draining the potholes or filling them, a prohibition against burning vegetation, and a right of entry for policing.]

2. Clearance easements - these are the so-called obstruction restrictions, including height limits, usually found around airports.

3. Scenic easements - this, in effect, is the purchase of a "view" The terms of the grant will vary, but in general the purpose is to prohibit any activity by the landowner which will interfere with scenery, such as dumping trash, cutting the woodlot, erecting billboards, etc. Often the grant of such negative rights is accompanied by an affirmative right of entry to inspect, to trim trees or to remove violating materials or structures.

Public agencies may obtain these easements through negotiated purchase, gift, or eminent domain. Enabling authority to use the power to eminent domain to acquire easements must exist. In the case of scenic easements, the Supreme Court of Wisconsin has held that state agencies do have the authority to acquire scenic easements through the power of eminent domain.

This ruling came about from a challenge of local landowners to the state's scenic easement program for the Great River Road. The landowners contended that, among other things, there was no public purpose or necessity for this acquisition. Specifically, they contended that the protection of scenic beauty was not a public purpose. [Under the law in Wisconsin, the State may only acquire, by eminent domain, these lands which are needed for public purpose.] The State Supreme Court held that the protection of scenic beauty did provide a public purpose. Thus, Wisconsin legislative acts which enabled state agency acquisition of scenic easements were valid, and the power of eminent domain could be utilized to fulfill these purposes.

It should be noted that the scenic easement program for the Great River Road along the Mississippi River is an often quoted example of the use of easements to protect and control the land for aesthetic purposes.

Despite Wisconsin's success in using the easement as a tool for land use control along the Mississippi River and for hunting and fishing rights, a significant obstacle remains in the State for using easements to protect/ control land on a much broader basis. More educational efforts are needed to convince agency personnel and the general public that the use easements can make a material contribution in preserving/controlling the Wisconsin landscape. Extension should provide the leadership and educational programming in this area to insure that this tool is utilized to its full potential.

Needs

Materials which explain the potential and limitations of the use of easements.

H. Transfer of Development Rights*

Transfer of development rights is derived from rather simple principles that rest on extensions of U.S. property law.

In the U.S., the right to develop land is included in the property rights that go along with land ownership. The development right (DR) receives little explicit recognition apart from other property rights. In the past, DR have not been viewed as fully separable from the land parcel--there is no market in which DR are bought or sold. The development potential of a parcel is retained within that same parcel, unless an easement is purchased which restricts the development.

TDR programs would explicitly recognize that development rights could be bought and sold on the market. So, DR would be treated like mineral rights, which the landowner can sell and which can be resold in a mineral rights market. The landowner who sells his DR, like the owner who sells mineral rights, would still own the land and could use it for agriculture, forestry, recreation, or some other undeveloped use.

A TDR program would operate in the following manner: The local government would zone certain areas for development, and other areas for preservation (any nondevelopment use). Landowners in the preservation zone would not be able to develop, but would be assigned a certain number of "development right units", based on the previous development potential of their property. Landowners in the development zone might also have some DR units, and would be able to develop their property. But they would be prohibited from developing above some density level unless they pruchase some "development right units" from landowners in the preservation zone. Thus, landowners in the preservation zone would have "DR units", but not enough to fully develop their property unless they purchased some extra "DR units" from the restricted landowners.

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*From, "TDR: New Land Policy for Wisconsin" by Barrows, Richard, et al. Ag Economics Staff Paper Series, #87, Madison, January, 1975.

This TDR process accomplishes two important results: (1) landowners in the preservation zone would be compensated for their "wipeout losses" from the restrictive zoning by selling their "DR units"; (2) landowners in the development zone must share their "windfall gains" with restricted landowners by purchasing "DR units". Thus, TDR reduces the windfall gains and the wipeout losses for individuals. Individuals would have less economic incentive to change the zoning to further their own economic interest -- owners who develop must share their windfall gains, and restricted owners would be compensated. Zoning could be more successfully used to implement the local land use plan, because individuals would no longer have an economic incentive to act contrary to the public interest.

In TDR programs, a supply and demand for the DR is provided to form a market in development rights. The transfer of development rights between property owners would occur through an organized market.

The supply of DR would be created when the local government designates open space or low density zones, and assigns "development right units" for each parcel. Landowners in these nondevelopment areas could not develop their property, but could sell their development rights and receive compensation for their wipeout losses, while holding all other rights to their land. The distribution of DR which can be sold creates the supply component of the DR market.

To establish the demand for DR, intensive development zones would be identified by the local government, and a specified number of development right units would be required in order to develop a parcel. For example, a developer contemplating the construction of an apartment complex might need one DR for each living unit in his development. Landowners in these development areas would be assigned "development right units", but none would have enough to fully develop his property. Thus, for more intensive uses, the owner would be required to buy extra DR. The additional DR would be purchased from DR holders in the open space zone, creating the demand side of the DR market.

A simple example will help clarify the concept. Suppose that a local government designates open space and development districts. The local government decides that 120 housing units could potentially be built on the land that is to be preserved. Then, 120 "certificates of development rights" are issued to open space owners, according to how many housing units each landowner could have built. These DR certificates may be sold to landowners in other districts. The local government also identifies a development in the zone. More intensive development would require the landowner to purchase additional DR certificates. Thus, development zone landowners create a demand for DR, and open space landowners provide the supply. Compensation is paid to restricted owners when they sell their DR, and development is guided to where it best serves the public interest. This basic idea of Transfer of Development Rights can be applied in many different situations.

In general, the TDR concept has great appeal to public officials and private citizens who are concerned with land use changes and public policy. TDR offers a solution to one of the most critical problems of present land use policy tools--the distribution of benefits and costs. When a landowner is restricted in his land use in order to preserve open space, all members of the general public may benefit, but the landowner alone pays the cost of nondevelopment. Or when zones are drawn on the official zoning maps, restricted landowners suffer "wipeout losses" (from inability to develop) while development zone landowners enjoy "windfall gains" from land development.

TDR solves these problems by providing for compensation to restricted landowners.

But there are several problems which must be overcome in order for a TDR program to be successful. The complex program must be understood by local citizens, landowners, and developers. The planning agencies must be able to clearly identify preservation and development districts, forecast development demand, and administer the entire TDR program. The market for DR must function smoothly to insure fair compensation to restricted landowners. These, and other problems, pose practical limitations to the number, and size, of areas to which TDR could be applied. More research is needed to identify areas in which TDR programs could be successful.

In general, TDR is a useful and promising addition to public policy tools for guiding land use. On balance, TDR deserves guarded optimism at this stage, and a great deal more analysis before any action is taken to implement a TDR program in Wisconsin.

Needs

Materials explaining the potential use and limitations of TDR's.

VI. Administration of Land Use Programs

The aim of land use planning is to affect the way by which people use land. The generation of a "plan as an idea" may, if the idea is desseminated, produce the desired change if the recipient of the communicated idea understands how it is to apply to their perceived choices and if they voluntarily consent to choose the option indicated as being consistent with the plan. However, many times, it is not entirely and unequivocally clear how the plan applies to a particular person with a particular desire. Nor is it always in the best interest of everyone to conform to the plan. Thus, the need for a regulatory ordinance.

For these and related reasons, it is necessary to have people who will administer a plan and plan implementing ordinances. Administering involves communicating, interpreting, adjusting the plan's hopes to the realities of conflicting hopes and needs, and applying compulsion. Implementation also involves a "feedback loop" communicating suggestions about needed revisions in the plan based on administrative experience.

Without capable administration, the effort at planning, the work on preparing and passing ordinances, and all the public education that may have gone into these preparatory activities, may well be for naught.

Sources of Public Assistance

University	Agency
1. Ag Econ	1. DLAD
2. URPL	2. DA
3. IGA	3. SPO
4. SWCU	4. DNR

Clientele

1. Zoning administrators
2. Zoning Committee members
3. Town Board members
4. Citizen groups
5. DA's
6. Courts
7. Bar associations
8. Surveyors
9. Plumbers
10. Developers

Needs

1. A great deal of work is needed to categorize the issues and to devise "formula" solutions which can then be taught. Three clusters of Extension talents are needed as follows: a team of people to work on policy development; a team to work on selecting priority policies and devising implementation strategies, and a third team in administering the selected strategies.

2. Increased staff to work with local Code Administrators on a continuous basis.

3. Newsletter to local administrators and specialized circulars, fact sheets, and bulletins to assist them in code administration.

VII. Program Evaluation

University of Wisconsin-Extension, for more than 50 years, has been deeply involved in land use educational programs, and has made major contributions to shaping land use policy in the state. Rooted in these years of experience and in literally thousands of meetings with town and county citizen groups and governmental boards and committees, Extension faculty have continuously expressed a commitment toward involving citizens in the planning process.

As local, state, and national programs have shifted and changed emphasis regarding land use planning, University Extension has demonstrated a capability to continuously adjust its program emphasis and to shift resources to meet new needs.

In view of the fact that a strong national commitment to land use planning is lacking and that many states, including Wisconsin, are reluctant to adopt comprehensive land use planning objectives, it appears that the responsibility for such governmental activities will continue to rest with local units of government. It is at this level that Wisconsin's Extension organization has demonstrated a high level of educational capability. These efforts are being strengthened in a variety of ways, preparation of this manual for use by agents/specialists for land use educational programs; Extension staffing to serve coastal zone planning, regional planning, "208" Planning, local planning, and the like.

The Resource Policy and Land Use Planning Committee believes that program evaluation must be an integral part of the educational process and that resources and faculty time should be devoted to this element.

There is an enormous wealth of experience which needs to be summarized, pulled together and analyzed, and placed in a context useful to the 1970's. For example, "citizen participation" is not a new governmental process unique to the 60's and 70's. Extension was practicing that more than 40 years ago as the state took steps to rationalize a chaotic land tenure situation in the "cut-over region".

A modest effort has been initiated as a part of the four-year (1976-1979) professional improvement program for agents/specialists. One segment in each session will be devoted to a period of Wisconsin's land use history. The theory behind this commitment is that some of the reality of public attitudes, laws, structures, etc. with which we in Extension deal is traceable to a heritage which, in turn, grows out of unique historical events, and that we can better confront the future if we more clearly understand our past.

Historical topics to cover, include: (a) how early land ownership and use patterns were determined; (b) the social and economic dyanamics which underlay the northern timber cutting; (c) the "farms or forest" period involving the cut-over out of which came early county zoning; (d) agricultural shifts--from wheat to dairy to diversification; (e) how and why the pattern of our local government system was set; (f) the political and public finance heritage of the Progressive era; (g) the State Planning Board story--beginning with agency efforts at "scientific land planning" in 1927-1929 through formation of the Board to its amalgamation within a new state agency in 1959; (h) the early and mid-1950's period of serious legislative studies of resource management topics leading to activation of new regional and state planning programs.

An Extension person dealing with land use should have some understanding of these topics, some views on their relevance to current and future events, and the ability to teach about this heritage and its relevance. One way to convey this information within the training sessions is to collect and reproduce key readings, to prepare a summary and analysis of the topic, and to discuss the topic, what its current meaning is, and how to use the historical information in decision-making and teaching.

Another program evaluation technique which the committee believes to have high utility is the preparation of case histories by agents/specialists on planning successes and failures at the local level. Several case histories are included in the appendix; additional case histories are needed. To permit comparisons and to provide an analytical framework for evaluation, it will be useful to develop an outline of the elements which should be included in developing case histories.

An informal group of specialists have been meeting on the evaluation of the Critical Resources Information Program (C.R.I.P.); now called the Heritage Areas Program (H.A.P.). One study has been completed for Crawford County. Survey reviews will be made of all twelve counties which have participated to date in CRIP/HAP after which two counties will be selected for further study; one county at a more advanced stage of planning than Crawford County and another county where the effort had minimal impacts. The broader objective of these reviews is to shed some light on patterns affecting Extension's role in land use planning and other activities; what type of land environment is conducive to the success of such activity? A corallary objective concerns the development of a means of measuring the effectiveness of Extension programs: which common denominators point to success or failure?

A more comprehensive longer range evaluation process needs to be developed. No overall research design has been developed at this time. In view of the difficulty of the subject, a small group of faculty members with knowledge and experience in planning and in evaluation techniques should be formed to develop such a research design. A variety of approaches should be considered; case histories; survey techniques - interviews, mail questionnaires, etc.; - performance indications such as adopted plans, ordinances, subdivision codes, etc; inventories of land use changes over time, in relation to plans and regulatory ordinances; a measurement of Extension's involvement and techniques used; an analysis of failures.

An ad hoc subcommittee should be formed to address the question, to explore it with Program and Staff Development and faculty in the residence Department of Urban and Regional Planning, and to search for extramural funding.

Needs

1. Continue the analysis of Wisconsin's land use planning history.

2. Develop agent case histories on land use planning, successes and failures.

3. Continue the Heritage Areas Program evaluation.

4. Develop a comprehensive program evaluation process.

VIII. Extension Programming

A. Professional Improvement - Agents and Specialists

1. Training Session

Land use planning educational programming requires both substantive knowledge in planning and extension education.

The Committee has developed a four-year professional improvement program (2-3 days each) for the years 1976-1979 as follows: (several of the same subjects will be covered in each year of the series)

1976 - Theme Taxes and Land Use

a. Wisconsin Land Use and Extension Education History
b. Manual - Education for Land Use Planning
c. Contemporary Issues
d. Taxes, Policy, Politics, and Land Use
e. "208 Planning"

1977 - Theme Involving People

a. Wisconsin Land Use and Extension Education History
b. Manual - Education for Land Use Planning
c. Contemporary Issues
d. Involving People
e. How to Plan
f. Sector Planning
g. Multi-state/federal Planning
h. Code Administration and Implementation

1978 - Theme Techniques and Implementation

a. Wisconsin Land Use and Extension Education History
b. Contemporary Issues
c. Sector Planning
d. Code Administration and Implementation (techniques other than ordinances, such as easements, land banking, tax incentives, TRD's, etc.)

1979 - Theme Policy, Political, Institutional Questions, and Program Evaluation

a. Wisconsin Land Use and Extension Education History

b. Contemporary Issues

c. Sector Planning

d. Code Admimistration and Implementation

e. Program Evaluation

2. Short Course - Introduction to Regional Planning

A two-week short course offered in the fall and spring of each year, primarily for public land managers. The committee believes that agent and specialist participation in this short course has a high degree of relevance, especially for those who have no formal courses in planning. The Madison Department of Urban and Regional Planning has authorized this course for academic credit (3 hours). Instructors: Professors John C. Roberts and Harold C. Jordahl, Jr., Extension Department of Urban and Regional Planning.

Needs

Additional professional improvement needs to be accomplished with other agents; agriculture, home, and youth.

3. Educational Leaves of Absence

The Committee recommends that agents who have major responsibilities for land use planning educational programs and lack the Master's degree, be encouraged and supported to take an educational leave for an advanced degree in planning or related programs.

6

B. Extension Staffing

Commitments to a long range comprehensive land use educational program should influence staff recruitment and policies. Once program priorities are established, an analysis should be made of existing specialist capabilities, by department, to determine if staff resources and time can be shifted to meet priority targets and where additional faculty are required.

Further, the committee recommended that Extension give high priority to hiring of resource agents for those counties that presently lack such agents (approximately 30) until that goal is achieved. The committee believes that area planning agents with educational backgrounds in planning or related fields should be hired to work on a multi-county basis. In the meantime, the committee believes that County Chairpersons, in counties who lack Resource Agents, should review with their faculty how planning educational needs can best be met. Whether or not a county has a resource agent, it is important that other agents--home, youth, agriculture--participate in land use education programs.

C. Where to Program

The committee believes that staff resources should be allocated to those counties where there is a willingness on the part of the community, the agent, governmental officials, and planners to make a commitment to a comprehensive planning program over a relatively long time period; five to ten years. Ad hoc requests from agents reacting to land use problems on a case to case basis will be given low priority.

Furthermore, the committee recommends that specialists work in teams to develop coordinated programs with agents; the make up of each team will depend upon the unique characteristics of the participating counties. Because the demand for comprehensive programs will exceed the capability of the faculty in any one year, criteria for county selection need to be developed and agreed to by the committee. Where teams are organized, the emphasis should be placed on computing that part of the process in a relatively short period of time (one to one and one-half years). The agent will then be able to continue his program with specialist assistance as necessary over the longer range.

D. Who, Within Extension, Programs

Substantial emphasis will continue to be given to working with agents on long range comprehensive land use educational programs. Such programs, when done in consort with a professional staffed planning process is ideal (see the appendix - Case Histories - where this approach has worked successfully).

In addition, the committee recommends that land use educational "packages" be developed for use by Home Agents and Youth Agents. (Some state staff specialists are presently engaged in such an effort for Youth Agents and plan to have [illegible] prototype package ready for testing in a select number of counties in 1977 and at the state level in 1978.) Agriculture, agribusiness, and continuing education agents can moreover make substantial contributions to planning education programs.

Some argue that fundamental changes in citizen perceptions regarding land use and the institution of private property must occur before planning and regulatory programs will be effective; others argue that land use regulatory decisions must be made at a higher level of government such as regional institutions or the state. These questions are worthy of debate and informed discussion. In any event, for land use planning to be effective, substantial shifts in citizen perceptions are required, and additional Extension resources should be directed towards youth programs.

With regard to the development of educational materials for Home Agents, an ad hoc committee should be formed to work with that program unit.

IX. Educational Materials

Each of the following citations are identified and categorized according to the corresponding sections of the narrative. In each section they are listed in the following manner: Wisconsin Extension publications first; University of Wisconsin publications second; State of Wisconsin publications third; other state/federal publications fourth.

These materials can be obtained by the interested reader from the following sources indicated under "Footnotes." Attempts should be made to obtain these materials from these cited sources. In the event you have difficulty in obtaining materials or desire multiple copies, contact the following for assistance:

Dept. of Urban and Regional Planning
University of Wisconsin-Extension
520 Lowell Hall
Madison, Wisconsin
(608) 263-4848

Agents are encouraged to make use of these cited materials in their land use program efforts. It is hoped that these materials will be used to increase and strengthen the agents' expertise in the multi-faceted subject of land use planning. Also, it is hoped that the agents will freely use these materials in their informational/educational efforts with the local citizenry in the land use program area.

An attempt has been made to further identify and differentiate these materials according to their content and directed evidence. Asterisks will follow each citation to indicate this differentiation in the following manner:

* Materials suitable for general public use

** Materials suitable for the serious student and faculty member

*** Materials highly technical and specific as to subject matter

A. Footnotes

Cited bibliographic materials may be obtained from the following sources. Each citation will include this information indicating where it can specifically be acquired. Cost of material will be indicated in citations where it applies.

1. Available on loan only from:

UW-Extension Library
104 Extension Building
432 N. Lake Street
Madison, Wisconsin 53706
(608) 262-3340

Note "Instructions" for using bibliography section on how to obtain materials from library.

2. Available from Local County Extension Offices, or:

Agricultural Bulletin Room
1535 Observatory Drive
Madison, Wisconsin 53706
(608) 262-3346

3. Available from:

Dept. of Agricultural Economics
350 Ag. Hall, UW-Madison
Madison, Wisconsin 53706
(608) 262-3653

4. Available on loan from:

Bureau of Audio-Visual Instruction (BAVI)
P.O. Box 2093, 1327 University Avenue
Madison, Wisconsin 53706
(608) 262-1644

5. Available from:

Department of Natural Resources
P.O. Box 7921, 4610 University Avenue
Madison, Wisconsin 53707
(608) 266-2621
or: DNR District Offices

6. Limited copies available from:

Director
Floodplain and Shoreland Management Section
Department of Natural Resources (DNR)
Box 450, Madison, Wisconsin 53701
(608) 266-3093

7. Limited copies available from:

Institute of Environmental Studies (IES)
Communications Office
120 WARF Building, UW-Madison
Madison, Wisconsin 53706
(608) 263-5598

8. Available from:

Coordinator
Heritage Areas Program
217 No. Brooks Street
Madison, Wisconsin 53706
(608) 263-3903

9. Available from:

National Association of Counties Research Foundation
1001 Connecticut Avenue, NW
Washington, D.C. 20036

10. Available from:

Small Scale Waste Management Program
1 Agricultural Hall, UW-Madison
Madison, Wisconsin 53706
(608) 262-6968

11. Available from:

Superintendant of Documents
U.S. Government Printing Office
Washington, D.C. 20402

12. Available on loan or purchase from:

State Planning Office
Wisconsin Dept. of Administration
1 West Wilson Street
Madison, Wisconsin 53702
(608) 266-3382

13. Available from:

Wisconsin Geological and Natural History Survey
1815 University Avenue
Madison, Wisconsin 53706
(608) 262-1705

14. Available from:

Motion Pictures
Bureau of Mines
4800 Forbes Avenue
Pittsburgh, Pennsylvania 15213

Note "Instructions" for using bibliography for specific details on how to obtain films.

15. Available from:

United State Department of Agriculture (USDA)
Division of Information
Washington, D.C. 20250

16. Have not yet obtained copy of cited material; when obtained will include within UW-Extension library for loan purposes.

NOTE: When no footnote is given, material can be obtained from source that is indicated within citation.

B. Instructions

1. Instructions in using UW-Extension Madison library facilities for loan purposes:

Materials are loaned only to Extension personnel since the library serves primarily as a resource facility for the Extension. The loan period for these materials is one month. If a heavy demand develops for some of these materials, they will be restricted to a two-week loan period. These materials can be obtained either by calling or writing to the UW-Extension library. Specific questions regarding the borrowing of these materials can be addressed to Ms. Shirley Johnson, Associate Director, Extension Library Services, c/o UW-Extension library.

To facilitate borrowing these materials, please indicate under what section the requested material is located. (e.g. Smith, J.E., "Regional Planning Commission", located under Who Plans--III B.)

2. Instructions in borrowing films from the Bureau of Mines:

All Bureau films are available on free, short-term loan to secondary schools, colleges, civic and business groups, professional associations, and similar organizations. Give your official connection with the group before which the film will be shown, and sign your request. Requests should reach the BOM at least two weeks before the date on which the film is wanted for showing. Alternative films should also be indicated, since the high demand for these films often makes it impossible for the BOM to accommodate all requests.

EDUCATIONAL MATERIALS

I. Communities: Setting Where Land Use Education Takes Place

A. Community Definition

Publications

1. Warren, Roland, Studying Your Community, "Choosing the Geographic Area", Russell Sage Foundation, Washington, D.C., 1955*
2. Advisory Commission on Intergovernmental Relations, Performance of Urban Functions: Local and Areawide, Washington, D.C., 1973**(11)
3. "Solid Waste Management--Areawide Approaches" and "Community Action Guide #2: Area Approach to Pollution Control Programs", National Association of Counties Research Foundation, Washington, D.C., 1969*(9)

Audio-Visuals

B. Defining Community Goals

Publications

1. Karsten, Richard A., "Environmental Concerns Survey, Milwaukee, Wisconsin--An Overview", Environmental Resource Center, UW-Extension, Milwaukee, January 1975, 9 pages**
-Survey of community leaders in Milwaukee County to ascertain their environmental concerns and how the University might aid them in solving their environmental problems.

2. Broom, Glen, "Community Concerns Building: A Communication Experiment in Two Rural Wisconsin Communities", (Ph.D. dissertation, UW-Madison, 1976***

3. Heberlein, Thomas A., "Principles of Public Involvement", Staff Paper Series, UW-Extension, Cooperative Extension Program, April 1976, 26 pages (available from: Dept. of Rural Soc., 1240 Ag Hall, UW-Madison, Madison, WI 53706)*
-Discusses a number of issues which are vital to a successful and effective program of agency initiated public involvement, with particular reference to the planning process. Presents various "do's" and "don't's" to effectuate public involvement and discusses various ways in which public response can be analyzed.

4. DelBecq, et al, Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes, Scott-Foresman Co., 1975**(1)

5. Powers, Ronald, "Identifying the Community Power Structure", North-Central Regional Extension Publication #19, Iowa State University, Ames, Iowa, November 1965**(1)
-Outlines techniques for identifying those individuals who play a major role in community decision making.

6. "Special Issue" The Process of Planning in Small Towns", Small Town, Vol. 6, No. 4, (Oct., 1975), 39 pages (available from: Small Towns Institute, P.O. Box 517, Ellensburg, Washington, 98926)* $1.00
-Series of articles dealing with the planning process of and special problems unique to small towns (less than 50,000 population).

7. Hendee, J.D., R.N. Clark, and A.H. Stankey, "Framework for Agency Use of Public Input in Resource Decision-making", Journal of Soil and Water Conservation, Vol. 29, No. 2, March-April 1974, pages 60-66**
-Presents various techniques, methods of analysis, and evaluation of public involvement.

8. Clark, R.N., J.C. Hendee, and A.H. Stankey, "An Introduction to Codinvolve: A System for Analyzing, Storing, and Retrieving Public Input into Resource Decisions", USDA, April 1974, 16 pages (available from: Dr. John Hendee, U.S. Forest Service, Pacific Northwest Forest and Range Experiment Station, USDA, Seattle, Washington)**
-Describes a code and analysis storage and retrieval system which may be used to analyze and store public input. It is set up for use with or without a computer, and is a very systematic way of recording public input; it is a very useful system when there are substantial amounts of input and decisions are significant.

9. Public Involvement and the Forest Service: Experience, Effectiveness, and Suggested Direction, U.S. Forest Service, NTIS Accession No. PB 234 244/AS, 163 pages (available from: U.S. Forest Service, USDA, Washington, D.C. 20250)**
-A Forest Service study team investigated current procedures in public involvement and information gathering techniques. There are detailed chapters on techniques, methods of analysis, and evaluation of public involvement.

10. Hanson, Ivan. "A Strategy for Establishing Planning Priorities", in Aspects of Planning for Public Service in Rural Areas, North Central Regional Center for Rural Development, Iowa State Univ., Ames, Iowa, 1976.(1)
-A review of four methods for defining community goals: community attitude surveys, research techniques, money availability, and group sessions.

11. "Citizen Identification of Needs", in Village of Tigerton, Wisc., Comprehensive Plan, Shawano County Extension Office, 1976.*(1)
-Describes community problems as identified by citizens and by high school senior class.

Audio-Visuals

1. Film - "Public Will", BAVI #8487, 1972, 27 minutes, $13.00*(4)
-Documents the problems of the city from the view point of both the government and the citizen. Stresses need for finding ways for citizens to become involved in government to solve urban problems.

C. Methods For Education in Land Use

Publications

1. VandeBerg, Gale L., "Total Resource Development in Wisconsin: A Citizen's Guide to Plans and Action", UW-Extension, Madison, Oct. 1963, 15 pages*(1)
   -Presents a unified approach for citizen participation in the area of community economic and social growth. Gives good step-by-step procedures for developing community plans and initiating action.

2. Rowlands, Walter A., "A Citizen's Development Plan for Every County", Circular 617, UW-Extension, Madison, 1963, 24 pages*(1)
   -Discussion on how citizens should go about formulating development plans for their county. Emphasis is very strong for local citizen action for local planning.

3. Ihlenfeldt, Stanley W., James Johnson, and J.W. Clark, "People Planned Land Use", UW-Extension, Madison, Publication #G2729, June 1975, 6 pages*(2) (Also Appendix)
   -Brief summary of how Walworth County citizens through a seven year period decided on a land use plan and how it was implemented.

4. McCormick, John R., Ron E. Shaffer, and Mike Gorham, "Land Use Planning and Citizen Involvement", UW-Extension, Madison, Oct. 1974, 4 pages*(2) (Also Appendix)
   -Presents "improved" method of getting citizens involved in the planning process. Relates case study of utilizing nominal group technique to induce citizen involvement in Maple Grove, Wisconsin.

5. "Land Use Planning...When You Live Next Door to 2,000,000 People", St. Croix County, Informational Publication, 1975, 6 pages*(Appendix)
   -Brief case study citing the various steps that went into the implementation of a land use study for St. Croix County. The county rapidly is undergoing land use change due to the proximity of the Twin Cities. In view of the rising urbanization in this rural county, citizens, local officials, and extension professionals decided that a sound land use plan was a critical, immediate need.

6. Domack, Dennis, "St. Croix County Land Capability Study: A Major Educational Program", St. Croix County Extension Publication, Jan. 1975, 12 pages*(1)
   -Good publication: gives insight and background into the efforts of St. Croix County in its attempts to develop a comprehensive land use plan for the purpose of directing

the county's growth. Presents excellent background for a county agent in developing an educational program in land use planning for county citizens.

7. McCormick, John and Michael S. Spranger, "Experience and Comments on Developing Comprehensive Land Use Planning in Shawano County", Madison, July 1976, 10 pages*(Appendix) -Extension agent's experiences in developing a comprehensive land use plan. Presents good advice and strategy that can be utilized by the Extension agent who is interested in comprehensive planning for his county.

8. Huffman, Samuel F., and Joseph F. Hoffman, "Guide to Land Capability Analysis Interpretation--Troy/Hudson Townships, St. Croix County, Wisconsin", UW-River Falls, July 1, 1974, 11 pages*(1) -Presents technique of "land capability analysis which can be used as a tool to aid in making land use decisions. Land capability analysis involves determining the best or ultimate use for a parcel of land through examining several different physical factors of the land and soil. Through creation of land capability maps the physical constraints of the land can be known, and the maps can present a firm foundation to aid in development of a comprehensive land use plan.

9. "Hudson Community Demonstration Project", prepared by UW-Extension, UW-River Falls, and West Central Eau Claire/River Falls Wisconsin Regional Planning Commission, Planning Report #2, July 1975, 101 pages*(1) -Presents methodology, data base, land use analysis, findings and trends of special project which was designed as initial step in updating the Comprehensive Plan of Hudson and aiding in land use planning decisions.

10. Shaffer, Ron E., "The Wisconsin Rural Development Project" An Evaluation of Extension's Role", UW-Extension, Madison, February 1976, 95+ pages* (available from the Dept. of Ag. Econ.) -A summary of interviews with various Extension personnel of state and federal agencies, and local citizens who present their perceptions of the role that Extension played in specific local projects. Also a series of case examples are presented, showing a variety of approaches utilized by Extension in helping concerned citizens attack felt needs.

11. Heberlein, Thomas A., "Principles of Public Involvement", Staff Paper Series, UW-Extension, Madison, Cooperative Extension Program (Available: Dept. of Rural Soc., 1240 Ag Hall, Madison, WI 53706, April 1976, 26 pages)* -Discusses a number of issues which are vital to a successful and effective program of agency initiated public involvement, with particular reference to the planning process. Presents

various "do's" and "don't's" to effectuate public involvement, and discusses various ways in which public response can be analyzed.

12. Richards, Roland, "A Citizen's Look at Urbanization", Waukesha County Extension Office, 1969, 32 pages (Available from: UW-Extension Resource Agent, Waukesha County Courthouse, Waukesha, WI 53186)*
-Presents description of various forces at work that are changing the physical, economic, and social environment. Presents educational format for the citizen to understand the need for the wise use and planning of our natural resources and their preservation.

13. "Progressive Planning: Citizens' Accomplishments and Action in Washburn County, Wisconsin", UW-Extension, Nov. 1967, 16 pages (UW-Extension Resource Development Agent, County Hwy. Building, Spooner, Wisconsin 54801)*
-Summarizes the activities and accomplishments in Washburn County that resulted from interaction between citizens' planning groups and Extension personnel.

14. Anderson, Leonard R., "Land Use Planning, Monroe County, Wisconsin", Urban & Regional Planning Seminar, UW-Madison, April 5, 1976, 20+ pages*(1)
-Good case history on how Monroe County over a ten year period developed a land use plan, rural zoning ordinance, and other aspects of comprehensive planning programs. Traces through steps involved in planning process, citizen education and participation, data collection, etc.

15. Harris, Susan, "Diffusion of Land Use Controls: A Case Study of the Town of Dunn", Wisconsin State Planning Office, Dept. of Administration, Madison, August 1975, 14 pages*(12)
-Case study of the development of sanitary districts in the town of Dunn and the possible ramifications of urbanization into Lake Waubesa shore area.

16. "Walworth County Rezoning Nears Completion", Southeastern Wisconsin Regional Planning Commission Newsletter, Vol. 16, No. 2, March-April 1976, pp. 1-13 (limited copies available: John Roberts, 521 Lowell Hall, 610 Langdon St., Madison, Wisc., 53706, or SEWRPC, Old Courthouse, P.O. Box 769, Waukesha, Wisc., 53186, telephone: (414) 547-6721)*
-Case history of the comprehensive rezoning process which took place in Walworth County. Taking nearly seven years, the results of the process are two companion county zoning ordinances, one for floodplain and shoreland areas of this water resource-rich county and the other for the remaining portions of the unincorporated areas of the county.

17. Heberlein, Thomas A., "Some Observations on Alternative Mechanisms for Public Involvement: The Public Hearing, Public Opinion Poll, the Workshop, and the Quasi-Experiment", Natural Resources Journal, Vol. 16 (January 1976) pp. 198-212* (Limited reprints available from author, Dept. of Rural Sociology, UW-Madison, Madison, Wisconsin 53706)
-Reviews several alternative mechanisms for public involvement and discusses their strengths and weaknesses with the intent of aiding the natural resource managers/agents choose the technique most useful for their needs.

18. "Citizen Participation Training in Land Use", "Losing Ground: A Dialogue on Land Use Decisions", and "Land Use Planning and Policy: The Citizen's Perspective", a series of papers of the Sigurd Olson Institute of Environmental Studies, Northland College, Ashland, WI, June 1975, 24 pages*(1)
-Discussions of training workshops, seminars, and newspaper articles which were concerned with citizen participation in land use decisions in Bayfield and Ashland Counties.

19. Center for Community Organization and Area Development (CENCOAD), "An Introduction to Land Use Community Development and Area Development - Citizen Participation Techniques", (with the Sigurd Olson Institute), April 1976 (available from: Sigurd Olson Institute, Northland College, Ashland, Wisconsin 54806)*
-Summary of citizen participation techniques developed by CENCOAD in their work with communities around Sioux Falls, S.D. Describes various methods, ideas and techniques regarding citizen involvement and participation in land use decision, and alternative futures for community development.

20. Powers, Ronald C., "Identifying the Community Power Structure", North-Central Regional Extension Publication #19, Iowa State University, Ames, Iowa, Nov. 1965**(1)
-Outlines technique for identifying those individuals who play a major role in community decision making.

21. Lowry, Shelton G., "Committees: A Key to Group Leadership", North-Central Regional Extension Publication #18, Michigan State University, East Lansing, Michigan, 1965, 10 pages*(1)
-Discussion of committees--their importance, advantages, contributions, types, formation, etc.

22. "Special Issue: The Process of Planning in Small Towns", Small Town, 39 pages, Oct. 1975, Vol. 6, No. 4 (available from Small Towns Institute, P.O. Box 517, Ellensburg, Washington 98926)* $1.00
-Series of articles dealing with the planning process of and special problems unique to small towns (less than 50,000 population), in various parts of the U.S.

23. Hendee, J.C., R.N. Clark, and A.H. Stankey, "Framework for Agency Use of Public Input in Resource Decision-making", Journal of Soil and Water Conservation, Vol. 29, No. 2, March-April 1974, pages 60-66**
-Presents various techniques, methods of analysis and evaluation of public involvement.

24. Clark, R.N., J.C. Hendee, and A.H. Stankey, "An Introduction to Codinvolve: A System for Analyzing, Storing, and Retrieving Public Input into Resource Decisions", USDA, April 1974, 16 pages (available from: Dr. John Hendee, U.S. Forest Service, Pacific Northwest Forest and Range Experiment Station, USDA, Seattle, Washington)**
-Describes a code and analysis storage and retrieval system which may be used to analyze and store public input. It is set up for use with or without a computer, and is a very systematic way of recording public input; it is a very useful system when there are substantial amounts of input and decisions are significant.

25. Public Involvement and the Forest Service: Experience, Effectiveness, and Suggested Direction, U.S. Forest Service, USDA, Washington, D.C. 1974**(11)
-A Forest Service study team investigated current procedures in public involvement and information gathering techniques. There are detailed chapters on techniques, methods of analysis, and evaluation of public involvement.

II. Land Use Planning Why?

Publications

1. Bosselman, Fred and David Callies, The Quiet Revolution In Land Use Control, Council of Environmental Quality, Washington, D.C., 1972, 327 pages, cost: $2.75**(11)
   -Reviews recent land use legislation which authorized state or regional control of land use. Analyzes these new laws and attempts to predict the future course of land regulations in the United States.

2. ________________ The Taking Issue, Council of Environmental Quality, Washington, D.C., 1973, 329 pages, cost: $2.00**(11)
   -Presents an analysis of the constitutional limits of governmental authority to regulate the use of privately-owned land without paying compensation to the owners. Presents the political and legal history of our constitutional powers affecting land, the various court interpretations of these powers, and options open to future judicial and legislative action.

3. Large, Donald, "This Land is Whose Land? Changing Concepts of Land as Property", Wisconsin Law Review, Volume 1973, No. 4, UW-Madison, 1973*(1)
   -Analyzes the changing concepts of land as property in legal/political terms within the United States over the last several hundred years.

4. Clawson, Marion, Man and Land in the United States, Univ. of Nebraska Press, Lincoln, Nebraska, 1964, 170 pages*(1)
   -Good introductory book showing how the American philosophy, as far as it relates to land, evolved and changed from early colonial times to the present. Discusses some policy issues and problems which must be faced in some way in the decades ahead.

5. "National Land Use Policy: Objectives, Components, and Implementation", Proceedings of Special Conference sponsored by Soil Conservation Society of America, Nov. 27-29 1972, Des Moines, Iowa, 220 pages, 1973, $3.50 (available from: Soil Conservation Society of America, 7515 Northeast Ankeny Road, Ankeny, Iowa, 50021)
   -Series of presentations discussing the objectives and needs for a National Land Use Policy, the various components of a land use policy, the implementation of land use policy and plans, and what the future holds regarding land use planning.

Audio-Visuals

1. Film - "All of the People All of the Time", BAVI #3345, 1965, 30 min., Rental $4.00*(4)
   -Discusses why planning is needed and why it is important for citizens to involve themselves in the planning process.

2. Film - "Of People, Land and Planning", BAVI #9526, 1975, 24 minutes, Rental $4.50, Purchase $100.00*(4)
   -Presents history behind some of our land use problems in Wisconsin and why land use planning is desirable. Suggests that one way to deal with land use conflicts and problems is through collective efforts, such as regional planning agencies.

3. Slide set - "Regional Planning in Wisconsin", BAVI 1975*(4)
   -Describes four of Wisconsin's regional planning commissions and shows some of the many problems that they help to solve.

4. Slide set - "Wisconsin Wetlands", BAVI 1976, Purchase only $25.00*(4)
   -Presents various types of wetlands in Wisconsin, their importance, and the need for an overall wetlands policy.

5. Slide set - "Protecting Wisconsin Farm Land", BAVI 1975, Purchase only $20.00*(4)
   -Presents argument on why farm land should be preserved. Asks "what lands should be protected?" and "who should decide?"

III. Land Use Planning, How and By Whom?

A. Data

Publications

1. Runge, Carlisle P. Farnum Alston, and Jon A. Kusler, "Symposium: A Survey of Programs for Statewide Land Resource Inventories", Faculty Land Use Problem Definition Seminar, IES Working Paper 8D, UW-Madison, Dec. 1972, 163 pages*(1)
   -Presents what is being done in various states and institutions in developing land resources inventories. This report surveys operational statewide geo-information systems in use in the U.S. and in Canada. (Available from: Institute of Environmental Studies, Communications Office, 120 WARF Building, UW-Madison, Madison, WI 53706)

2. Inventory of Wisconsin Land Resources Data, Wisc. Dept. of Administration, SPO, Madison, WI, 1975, 480 pages**(12) & (1)
   -Provides a comprehensive listing of where to find data pertaining to Wisconsin's land resources. Catalogs spatially-related data of county-wide, regional and statewide significance in Wisconsin.

3. Keyes, Dale L., and Umit Basoglu, "CRIP - Comparative Analysis of Sampling Designs for Geographical Data", Report #3, Wisc. Dept. of Administration, SPO, Madison, WI, Oct. 1973, 28 pages***(12)
   -Interprets, analyzes, and assesses various spatial sampling techniques for use in geographical data collection.

4. Erickson, Rodney, and Jack Huddleston, "Small Community Growth: Changing Patterns in Northern and Western Wisconsin", Wisconsin Dept. of Administration, SPO, Madison, WI, 1975, 78 pages*(12)
   -Discussion on the most recent (1970-74) growth of population, employment, and income in the northern and western parts of Wisconsin. Presents analysis of whether or not this growth is likely to continue.

5. Various U.S. Census Publications (e.g. Census of Population, Census of Agriculture, Census of Housing, Census of Business)**

6. Various Land Use Planning Publications of Wisconsin State Planning Office***(12)

7. "Topography Mapping in Wisconsin", Natural Resources Council of State Sgencies, Wisc. GNHS, Madison, WI, July 1975*(13)
   -Explains Wisconsin's topographic program, what topographic maps are, uses of topographic maps, etc.

8. "Wisconsin's Land: Facts and Issues", League of Women Voters, Inc., Madison, WI, Aug. 1975, 75 pages, cost $.75* (Available: League of Women Voters of Wisconsin, Inc., 433 West Washington Ave., Madison, WI 53703)
-Presents facts on some of the most critical areas of land use in Wisconsin and how the state government has or has not dealt with them.

9. Northeastern Illinois Planning Commission, "Soil Mapping by Computer", Chicago 1975, 3 pages (Available from: NIPC, 10 S. Riverside Plaza, Chicago, Illinois 60606)*
-Short pamphlet describing new computer technology which not only presents complex analysis of soil data, but also gives a graphical representation of this analysis.

10. "Research and Data Needs for Land Use Planning", U.S. Dept. of Agriculture, Washington, D.C., March 1974**(11)
-Provides background on research issues and data problems relating to land use planning in the U.S., and discusses existing land use research and USDA data systems. Presents recommendations for land use research, data development, and dissemination capabilities.

11. "Land Use: Issues and Research Needs for Planning, Policy, and Allocation", Report of a Task Force of the National Planning Committee, Agricultural Research Policy Advisory Committee, National Assoc. of State Universities and Land Grant Colleges, and the U.S. Dept. of Agriculture, Feb. 1976, 64+ pages (Available from: Research Editor, College of Agriculture, Agricultural Science II, Washington State University, Pullman, Washington 99163, single copies free)*
-Identifies critical land use policy and planning issues, research needs and data information needs for decision-makers in confronting these issues and the need for citizen participation in land use decision-making.

12. "Land Use Planning Assistance available through the U.S. Department of Agriculture", USDA, Washington, DC, February, 1974. 50 pages* (11)
-Summarizes the purposes of each of the principal Department programs which influence land use and the land use application of that particular program. These programs benefit land use planners because they either furnish inventory data on natural resources or else make available a wide range of advisory, financial, or technical assistance.

13. Lewis, Phillip H., Jr. "An Earth Aid Program: Systems and Methods for Land Resource Policy Development". Paper prepared for National Conference on Land Policy, Harrisburg, Pennsylvania. June 29 & 30, 1972. 40 pages* (1)

-Presents an over-view of the land use planning process. Explains why there is a real need for land use planning, both short and long-run. Discusses new comprehensive data gathering techniques being utilized by land use planners, and describes the "environmental corridor" concept and future possible educational programs in land use planning.

14. "Rural Landscape Assessment: A Comparative Evaluation of High Platform Remote Sensors", Department of Interior, Bureau of Outdoor Recreation and College of Agricultural and Life Sciences, UW-Madison. December, 1975. 242 pages** (available: Dept. of Landscape Architecture/Environmental Awareness Center; School of Natural Resources, College of Agricultural and Life Sciences; UW-Madison, Madison, Wisconsin 53706)
-Investigation and comparison of the applicability of various high platform remote sensing techniques and methods for use in land resource assessment, planning, and management.

15. "Natural Resource Data Needs Recommendations" The Council of State Governments, Lexington, KY., 1976* (1)
-Synopsis of the types of data required for planning purposes.

Audio-Visuals

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B. Who Plans

Publications

1. "What is a Town?" by the Wisconsin Taxpayers Alliance, Vol. 35, No. 6, June 1967, 9 pages (Available from: Wisc. Taxpayers Alliance, 335 West Wilson St., Madison, WI, 53705, 50¢)*
   -Describes the history, functions, procedures, physical structure, etc. of towns in Wisconsin. (1)

2. "Town Government", Wisconsin Taxpayers Alliance, Vol. 41, No. 7, July 1973. 9 pages (available from Wisconsin Taxpayers Alliance, 335 West Wilson Street, Madison, Wisconsin, 53705; 50¢)* (1)

3. Clarenbach, Fred A., "Regional Planning in Wisconsin: Next Steps?", Wisconsin Dept. of Local Affairs and Development, Madison, Wisconsin, May 1976, 131 pages**(1)
   -Presents an investigation in Wisconsin's substate planning system, discusses its complexities, and presents recommendations on how this system can be clarified, strengthed, and improved.

4. Clarenbach, Fred A., Harold C. Jordahl, Jr., and Carlisle P. Runge, "Maintaining Wisconsin: State/Regional/Local Planning Arrangements for Land Development and Environmental Protection", UW-Madison Dept. of Urban and Regional Planning, Madison Jan. 1972, 39 pages*(1)
   -Discusses the need for strengthened state/local land use policy formulations and makes specific recommendations for state and regional planning.

5. Donoghue, James R., "The Local Government System in Wisconsin", UW-Extension, Reprint from 1968 Wisconsin Bluebook, 209 pages*(1)
   -Describes history, functions, and trends of local governmental system in Wisconsin.

6. Kusler, Jon A., "State Land Planning and Regulatory Functions; Proposals and Programs from the Several States and a Draft Bill for Wisconsin", Faculty Land Use Problem Definition Seminar, UW-Madison, IES Working Paper 8E, December 1972, 158+ pages**(7)
   -Discussion on institutional arrangements for local planning and control of land use in Wisconsin. Report compares some of the major proposals for institutional reform, and recommends, in some detail, an overall format for restructuring state level land use planning and regulation in Wisconsin. It also includes a draft of a proposal bill embodying some of the author's recommendations.

7. "Citizens Look at Wisconsin's State Development Policy" - a series of four publications dealing with some public policy issues related to Wisconsin's future development, UW-Extension,

Cooperative Extension Program, Madison, WI, Spring 1974*(3)
-Four brief publications--(1) "People, Places, and Preferences", (2) "Wisconsin's Job Future: Feast or Famine", (3) "Your Stake in Land Use Policy", (4) "Getting Something Done". Publications designed to make state citizens: aware of the components and process of formulating a state development plan, informed and able to make intelligent decisions about policy alternatives, and understand how they can influence the executive and legislative branches of state government in policy formulation.

8. "The Concept of Region and Regionalism--Functions and Delineations", Seminar Proceedings #5, Title I Consortium Project, Higher Education Act of 1965, Green Bay, March 5-6, 1970, 68 pages**(1)
-Series of seminar papers discussing the theories and concepts of regionalism. Emphasis was placed on increasing awareness of how regional planning can contribute to solving community and area problems.

9. "Regional Planning and Development Strategies", Seminar Proceedings #6, UW-Extension, Title I Consortium Project, Higher Education Act of 1965, Waukesha, Nov. 5-6, 1970, 72 pages**(1)
-Series of seminar papers discussing regional planning and its use in such areas as transportation and watersheds. Also presents various problems facing regional planning and planning strategies that can be used in certain situations.

10. "Role of Wisconsin Institutions of Higher Education in Area Resource Planning and Development", Seminar Proceedings #2, Title I Consortium Project, Higher Education Act of 1965, Superior, Sept. 19-21, 1968, 62 pages**(1)
-Series of seminar papers examining the role of institutions of higher education in the solution of community problems. Presents these institutions' role in the planning process, and describes various programs and resources available that can assist community and area wide development.

11. "Fostering Cooperation with Local Officials in Area Planning and Development Projects", Seminar Proceedings #3, Title I Consortium Project, Higher Education Act of 1965, Platteville, March 13-15, 1969, 101 pages**(1)
-Series of seminar papers discussing ways in which higher education institutions can more actively use their resources to communities, areas and regions in helping to solve major community problems.

12. "Land Use Policy: Guide for a Growing Iowa", Land Use Planning Task Force, USDA Rural Development Committee,

Ames, Iowa, May 1974, 32 pages* (1)
-General primer on land use planning--history of land use, potential conflicts, future trends, why a land use planning policy is needed, and who is involved in this planning process.

13. North-Central Regional Center for Rural Development, "Contributions of the Colleges of Agriculture in Land Use Policy and Planning", Iowa State University, Ames, Iowa, Dec. 1975, 50 pages* (1)
    -Presents a summary of Extension and research activities related to land use since 1972 in states of Iowa, Wisconsin, South Dakota, North Dakota, Nebraska, Montana, Michigan, Indiana, Illinois, Minnesota, Kansas, and Ohio. Outlines some of the present and future issues in land use policy in these states and suggests some education and research needs that may be fulfilled by Colleges of Agriculture.

14. Bosselman, Fred, and David Callies, *The Quiet Revolution in Land Use Control*, Council on Environmental Quality, 1972, 327 pages, cost $2.75** (11)
    -Reviews new land use legislation authorizing state or regional control of land use. Analyzes these new laws and attempts to predict the future course of land regulations in the United States. (Available from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC, 20402, $2.75)

15. Federal Cooperative Extension Service, USDA, "Land Resources Today", Jan. 1975* (Available from: Prof. John Quinn, 437 Mumford Hall, Univ. of Illinois, Urbana, Illinois, 61801, 50¢)
    -A set of three leaflets discussing issues, citizens' roles, and policy instruments for land use planning.

16. Lehmann, Richard A. and Pam Wiley, "Historical Perspectives", UW-Extension, I.G.A., 1976 (1)
    -Readings on land use activities within state and local governments and University Extension during earlier decades in Wisconsin's history.

Audio Visuals

1. Slide-tape set - "Regional Planning in Wisconsin", BAVI 1975* (4)
   -Describes four of Wisconsin's regional planning commissions and shows some of the many problems they help to solve.

2. Film - "Of People, Land, and Planning", BAVI #9526, Rental - $4.50, Purchase - $100.00, 1975* (4)
   -Presents history behind some of our land use problems in Wisconsin and why land use planning is desirable. Suggests that one way to deal with land use conflicts and problems is through collective efforts such as regional planning agencies.

3. Audio-visual presentation - "Planning in West Central Wisconsin"* (Available from: West Central Wisconsin Regional Planning Commission, Eau Claire County Courthouse, 731 Oxford Avenue, Eau Claire, Wisconsin 54701)
   -Description of WCRPC, discusses: what is planning?, what is RPC?, what are activities of RPC's?.

4. Video-tape - "Land Resources Today", Cooperative Extension Service* (Available from: Classroom T.V. Center, Kidder Hall, Oregon State University, Corvallis, Oregon, 97331, cost $45.00)
   -Presents issues in land use, the citizens' role in making land use policy, and policy instruments for shaping land use choices. Presents actual scenes related to problems, citizens' participation, and resultant actions in land use programs.

5. Slide-tape set - "Planning Land Resources Today", Cooperative Extension Service* (Available from: R. Warren McCord, Extension Service, Auburn University, Auburn, Alabama 36830, $25.00 for each program, $75.00 for entire set)
   -Three different program sets designed for (1) general public, including property owners, (2) local governmental officials, and (3) state policy makers. Presents needed decisions on how to use land today and the alternatives that are available in arriving at these decisions.

6. Game - "Beat the Issue - A Game of Land Use Choices", Cooperative Extension Service (Available from: Extension Division, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061, cost $15.00)* (1)
   -A simulation game that helps youth and adults understand how decisions are made about land use issues. Introduces the "players" to basic principles of land use and furthers their understanding of how they can influence choice in their own community.

C. How to Develop a Land Use Plan

Publications

1. "Visions of Tomorrow", Wisconsin DNR, Div. of Environmental Protection, Madison, WI, 1973, 63 pages*(5)
   -Presents a comprehensive planning strategy for the management of Wisconsin's water resources. Gives very good step-by-step analysis of what planning is, what components make up a "plan", and what role do citizens play in the development of the "plan".

2. Indices of Regionalism - North-Central Wisconsin, Upper Great Lakes Regional Commission, Wisconsin Office, 1972, 44+ pages** (1)
   -Analyzes various alternatives of regional planning in the "Northern Highlands Region of Wisconsin" (Counties of Vilas, Oneida, Forest, Florence, and Langlade), presents and analyzes data for determining the planning mechanism and direction of this five-county area.

3. Murray, James M., "The City of Shawano, Wisconsin - An Overview", Research Institute of UW-Green Bay, Publication #100, 1976, 33 pages*(1)
   -An overview of the City of Shawano. A quick view of the city based upon a limited time spent in data gathering, and interviewing the UW-GB staff and students with the purpose of providing guidance to individuals undertaking the updating of the city's comprehensive land use plan.

4. Fall Creek Land Use Plan 1975-1990, West Central Wisconsin Regional Planning Commission, Feb. 1975, 35 pages*, and Fall Creek Community Resources, prepared by Eau Claire City-County Industrial Development Council and UW-Extension, 1975, 25 pages*
   -Comprehensive land use plan, describing background of Fall Creek, policies, and goals, and role citizens play in implementation of the plan.

5. "Progressive Planning: Citizen Accomplishments and Actions in Washburn County, Wisconsin", UW-Extension, Madison, Nov. 1967, 16 pages*(2)
   -Summarizes the activities and accomplishments in Washburn County that resulted from interaction between citizens' planning groups and Extension personnel.

6. Comprehensive Plan, Village of Wittenberg, Shawano Co., Extension Office, 1975, 82 pages*(1)
   -Comprehensive plan--describing problems, needs, and goals of Wittenberg. Contains facts past and present to serve as guides for future development. Many communities have

developed comprehensive plans; this is cited merely to illustrate what is included within such a plan.

7. "Blueprint for Bayfield - A Design Study for Preserving and Enhancing the Scenic Quality of a Great Lakes Community", Dept. of Landscape Architecture, UW-Madison, 80 pages*(1)
-Describes background of the community of Bayfield--the history, people, socioeconomic makeup. Presents course of action to follow in development of a plan for the future of Bayfield.

8. Bosselman, Fred, and David Callies, The Quiet Revolution in Land Use Control, Council on Environmental Quality, U.S. Gov't Printing Office, Washington, D.C., 1972, 327 pages, cost $2.75**(11)
-Reviews new land use legislation authorizing state or regional control of land use. Utilizes case study approach, analyzes these new laws, and attempts to predict the future course of land regulation in the United States.

9. "Special Issue: The Process of Planning in Small Towns", Small Town, Oct. 1975, Vol. 6, No. 4, 39 pages (Available from Small Towns Institute, P.O. Box 517, Ellensburg, Washington, 98926, $1.00)*
-Series of articles dealing with the planning process of and special problems unique to small towns (less than 50,000 population).

10. "A Primer in Planning," a special reprint from the Journal of Soil and Water Conservation, 1973, 31 pages, Cost $1.50* (S.C.S.A. 7515 N.E. Ankley Road, Ankley, Iowa, 50021.

Audio Visuals

1. Film - Land Use film, "When Will We Ever Learn?" UWEX-River Falls, 1976*
-A land use film featuring work in St. Croix and Barron counties, showing various land use issues in that part of Wisconsin and techniques. (Available from Teleproductions Center, Stout State University, Menomonie, Wisconsin 54751.)

IV. Planning For Critical Resources and the Potential Relationship to a Comprehensive Plan

A. Wetlands

Publications

1. Johnson, Carolyn D., "Wetland Use in Wisconsin: Historical Perspective and Present Picture", Wisc. DNR, Water Resources Planning Section, Madison, 1976*(1) & (5)
   -Historical analysis of wetlands in Wisconsin. Describes the functions of wetlands, how many wetlands Wisconsin once had, how they have been used, and how they are being used presently.

2. Heitz, Jean, "Wetland Use in Wisconsin: Present Policies and Regulations", DNR, Water Resources Planning Section, Madison, 1976** (1) & (5)
   -Discusses wetland policies and regulations that are currently in use within state of Wisconsin.

3. Stute, David, "Protection of Wetlands", Wisc. Legislative Council, Information Bulletin 74-4, Madison, Wisc., 1974, 28 pages (Available from: Wisc. Legislative Council, State Capitol, Madison, 53702)**
   -Describes constitutional issues and policy issues which should be considered when formulating wetland legislation.

4. Bedford, Barbara L., Elizabeth H. Zimmerman, and James H. Zimmerman, "Wetlands of Dane County", Dane County Regional Planning Commission, Madison, Wisc., 1976, 331 pages (Available from: Dane Co. RPC, Rm. 312, City-County Building, Madison, Wisconsin, 52709, $5.00)**
   -Detailed inventory of Dane County's wetlands. Discusses value of wetlands and the relationship of wetlands to soils, geology, hydrology, and water quality.

5. Guptu, Tirath R., and Jon H. Foster, "Economic Criteria for Freshwater Wetland Policy in Massachusetts", *American Journal of Agricultural Economics*, Feb. 1975, pages 40-45 (Available from: John C. Redman, Dept. of Ag. Econ., University of Kentucky, Lexington, Kentucky 40506)**
   -Develops criterion that can be used as a basis for deciding whether to issue or deny a permit to alter a wetland under the Massachusetts Inland Wetlands Act.

6. Yanggen, Douglas A., *et al*, "Wisconsin Wetlands", UW-Extension, Madison, 1976* (2)
   -Informational bulletin dealing with Wisconsin's wetlands.

7. Thurow, Charles, William Toner, and Duncan Erley, *Performance Controls for Sensitive Areas: A Practical Guide for Local*

Administrators, Washington Environmental Research Center, U.S. EPA, Washington, D.C., Doc. #PB 245 177, March 1975, 290+ pages (Available from: National Technical Information Service, U.S. Dept. of Commerce, Springfield, Virginia 22151, $13.00)**
-Report is written to be used as a handbook by local planning officials in planning for and regulating the use of 5 distinct natural areas: (1) streams and creeks, (2) wetlands, (3) woodlands, (4) hillsides, (5) groundwater and aquifer recharge areas. Each section is devoted to the discussion of local regulation of land use in areas identified as "sensitive", and each area is discussed in terms of its ecology and value to the public, current regulatory practices, and recommended programs for regulating the area.

Audio-Visuals

1. Film - "Cry of the Marsh", BAVI #7350, 1970, 13 minutes, rental $5.75*(4)
   -Provides a vivid portrayal of bird, animal, and plant life in unspoiled marshes and the devastating effects on nature as man and his machines transform such areas to other uses. A case study of a marsh community being destroyed by bulldozers.

2. Film - "March Waters: Waste or Wealth", BAVI #0445, 1953, 15 minutes, rental $6.00*(4)
   -Although somewhat dated, presents the different uses and values which may be applied to marshes and wetlands. Concludes with the question, "How do we make the best use of a marsh?"

3. Slide-tape set - "Wisconsin Wetlands", BAVI, 1976, purchase only $25.00 (can be rented through UW-Extension Library-Madison)*
   -Presents various types of wetlands found in Wisconsin, their importance, and the need for an overall wetland policy.

4. Film - "The Wetlands", BAVI #6840, 1976, 15 minutes, rental $2.00*(4)
   -Shows five different kinds of plant communities that grow in or around water: floating aquatic, emergent acquatic, sedje meadow, fen, and river bottom.

5. Film - "Wetlands and Waterfowl", Dept. of Natural Resources, Madison*(5)
   -Shows how waterfowl population is directly dependent upon marsh and wetlands for survival, and presents management work being conducted to save and improve wetlands in Wisconsin.

6. Film - "Flooding River: A Study of Riverine Ecology", BAVI #8791, 1972, 34 minutes, rental $15.25*(4)
-Detailed look at the Connecticut River eco-system including the various plant and animal communities unique to the different kinds of habitat created by the river. Argues against flood control projects (e.g. dams, levees) on the basis that they disrupt the ecological balance of the rivers, it marshes and estuaries, its backwaters, meanders, and oxbows.

B. Agricultural Lands

Publications

1. Barrows, Richard L., "Lower Taxes for Farmland and Open Space?", UW-Extension, Madison, Publication #G2668, Nov. 1974, 24 pages, 15¢*(2)
-Booklet discusses the efforts of various states to reduce the tax pressures that encourage land development, and to preserve agricultural and open space lands. Over 30 states have attempted to solve these problems with use value tax laws; the discussion thus focusses on the experience of states following this approach to the problem.

2. ______________________, "Farmland and Open Space Taxes: What Kind of Law for Wisconsin", UW-Extension, Madison, Publication #G2694, Feb. 1975, 12 pages, 15¢*(2)
-Discusses the advantages and disadvantages of "use value taxation" which allows land to be taxed according to its value in its current use. Within discussion several issues concerning use value taxation are addressed: these include: what land should qualify? Should there be zoning or other land use requirements? Should a rollback tax be required? Who should pay the costs of the program? Who should determine use value? Are there other types of tax programs? What about wetlands, woodlands, floodplains or other natural areas?

3. ______________________, and Douglas A. Yanggen, "Your Stake in Land Use Policy", UW-Extension, Madison, 1974, 9 pages*(3)
-Pamphlet looks at the relationship between economic growth and land use, and comments on recent changes and associated problems regarding land use from the rural and urban viewpoints. Summarizes current proposals for dealing with these land use problems (e.g. land use planning and control, property tax changes).

4. ______________________, and Sam Huffman, Bruce Prenguber, Ward Repp, and Karl Schmid, "More Houses, Fewer Farms: Land Use, Property Taxes, and Residential Development in the Town of Rice Lake", UW-Extension, Madison, Oct. 1975, 27+ pages*(2)(3)
-Case study, looking at the way that the use of the land in and around a rural community has changed within the last 15 years, and discussing the question of where should new development go.

5. ______________________, "Use-Value Taxation: The Experience of Other States", Staff Paper Series, #73, Dept. of Ag. Econ., UW-Madison, March 1974, 22 pages**(3)
-Discussion on "use-value assessment" as a policy tool to

reduce the pressure for land development on the urban fringe and in recreational areas. Presents summary of specific state legislation on use-value taxation, and analyzes the impact of this type of taxation on open space, farmers, and nonfarmers in the various states. In addition, it evaluates the policy implications of use-value taxation.

6. ______________________, Darius M. Adams, J. Douglas Brodie, Daniel W. Bromley, Richard W. Dumford, and Duncan A. Harkins, "Wisconsin Natural Resource Policy Issues: An Economic Prospective", Center for Resource Policy Studies, School of Natural Resources, UW-Madison, (Working Paper #6), July 1973, 320 pages (Available from: Center for Resource Policy Studies, UW-Madison, Madison, Wisconsin 53706, single copy free, multiple copies $1.00)*
-Recommends public policies for guiding the use of those land resources which are critical to the economic activities of agriculture, forestry, and mining. Presents brief overview of Wisconsin agriculture as background and analyzes present/future Wisconsin agriculture from an economic perspective aimed at developing state policies to stimulate (or protect) the economic development of Wisconsin agriculture consistent with ecological and environmental quality goals.

7. Clarenbach, Fred A., Harold C. Jordahl, Jr., and Carlisle P. Runge, "Public Rights in Private Lands: Potential for Implementing Land Use Plans", UW-Madison, Dept. of Urban & Reginal Planning, Feb. 1973, 27+ pages*(1)
-Analyzes various techniques (e.g. easements, transfer of development rights) for public acquisition of limited property rights in private lands for the purpose of land resource conservation and development control.

8. Deknatel, Charles, and Susan Harris, "Zoning to Preserve Agriculture: Columbia County", Wisconsin SPO, Dept. of Administration, Madison, Dec. 1974, 10 pages*(12)
-Case history that depicts changes in county's zoning ordinance in order to deal with competing agricultural and residential demands for land.

9. Our Land and Water Resources: Current and Prospective Supplies and Uses, Economic Research Service, U.S. Dept. of Agriculture, Miscellaneous Publication #1290, Washington, D.C., May 1974, 50 pages*(11)
-U.S. land and water resources are analyzed as a basis for projecting national agricultural cropland and other land needs to the year 2000. Impact of changes in technology and resource development as well as environmental and institutional factors affecting the availability of these natural resources are discussed. Emphasis is placed on the continuing responsibility of Federal, State, and local

governments to assess the adequacy of our natural resources to meet future needs and to improve the quality of the environment.

10. Keene, John C., *et al*, Untaxing Open Space: An Evaluation of the Effectiveness of Differential Assessment of Farms and Open Space", Prepared for the Council on Environmental Quality, Washington, D.C., April 1976, 400 pages**(11)
-Examines the effectiveness of differential assessment laws (assessment of undeveloped land for real property tax purposes at its current or farm value rather than at its fair market value which often includes a substantial element of development value). Concludes these laws work well in general to reduce the tax burden on farmers. However, acting alone, they are not effective at preserving current use. It is only when such laws are combined with other effective land use mechanisms in rural areas can they contribute to successful long-term preservation of open lands.

11. Zeimetz, Kathryn A., Elizabeth Dillon, Ernest E. Hardy, and Robert C. Otte, "Dynamics of Land Use in Fast Growth Areas", Economic Research Service, USDA, Ag. Economic Report #325, Washington, D.C., April 1976, 29+ pages. single copies--no cost**(15)
-Documents land use and land use changes between 1961 and 1970 for 53 rapid-growth counties by interpretation from aerial photograph. Shows that the amount of urban development on rural lands differed considerably by region and points out that shifts amoung rural uses of the land were an important aspect of land use change.

12. "Recommendations on Prime Lands: from the Seminar on Retention of Prime Lands", USDA, Washington, D.C., July 1975, 44+ pages*(15)
-Two day seminar composed of leading experts in various agricultural fields developed findings, conclusions, and recommendations on the subject of agricultural lands. General consensus of seminar participants was that the continued conversion of prime production lands to other land uses is a matter of growing concern that will require a great deal of attention in the future.

13. *Perspectives on Prime Land*, "Background Papers for Seminar on the Retention of Prime Lands", USDA, Committee on Land Use, July 1975, Washington, D.C., 257 pages**(15)
-Series of papers and review comments on the issue of the retention of prime agricultural lands. Presents varied views on programs, policies, and options available for the present and future use of prime agricultural lands in the United States.

14. "State Programs for the Differential Assessment of Farm and Open Space Land", Economic Research Service, USDA, Ag. Economic Report #256, Washington, D.C., April 1974, 64 pages**(15)
-Overview and analysis of various types of differential assessment laws now found in 31 states. Provides summary of each state's specific legislation in this area.

15. Cotner, M.L., M.D. Skold, and O. Krause, "Farmland: Will There Be Enough", Economic Research Service, USDA, ERS - #584, May 1975, Washington, D.C., 15 pages*(15)
-Brief analysis of present and future potential for agricultural lands in U.S. to meet domestic and foreign food fiber needs.

16. Vogel, Ronald J., and Alan J. Hahn, "On the Preservation of Agricultural Land", Land Economics, Vol. 48, 1972, pages 190-193*
-Brief article summarizing the need for preserving agricultural lands, and what is presently being done to preserve it.

17. Washbon, Wallace E., "Prime Agricultural Lands: A Problem of Priorities", Ag. Resource Commission, New York, June 1975, 6 pages (Available from: Wallace Washbon, Ag. Resource Commission, NYS Dept. of Ag. and Markets, State Campus, Albany, New York 12206)*
-Brief presentation and why prime agricultural lands are being threatened today, presentation of potential remedies to alleviate this situation.

18. "A People and Their Environment", Report from the Subcommittee on Environmental Quality for the Extension Committee on Organization and Policy, The National Association of State Universities and Land-Grant Colleges, Washington, D.C., 1975, 50+ pages* (1)
-Presents survey and analysis of ten major environmental issues now confronting rural America. Shows the need and importance of land use planning and control of nation's agricultural lands.

19. Chavooshian, B. Budd, George H. Niewsand, and Thomas Norman, "Growth-Management Program - A Proposed New Approach to Local Planning and Zoning", Cook College/Rutgers University, Cooperative Expansion Service Leaflet #503, New Brunswick, N.J., 1974, 26 pages*
-Presents brief history of past and present trends in zoning. Description of a "growth-management program" which utilizes the concept of transfer development rights as a vehicle for land use planning.

20. Gale, Dennis E., and Harvey Yawpolsky, "Agri-Zoning: How They're Gonna Keep 'Em Down on the Farm", and Peterson, Craig and Claire McCarthy, "These Farmers Said 'No Sale'", in Planning - the ASPO Magazine, Oct. 1975, Vol. 41, No. 9, pages 17-21*
-Presents a concept of transfer of developmental rights, a case study into actions taking place in Suffox County, New York, regarding this new concept in land use planning and control.

21. Raup, Philip M., "Urban Threats to Rural Lands: Background and Beginnings", Journal of American Institute of Planners, Vol. XLI, No. 6, Nov. 1975, pages 371-378*
-Argues that excessive use of land has been promoted through highway and housing finance, tax policies affecting capital gains, accelerated depreciation, deductibility of property taxes and mortgage interest, tax exemption for municipal bonds, and public utility pricing policies. Thus valuable prime agricultural land is being lost due to uncontrolled urban expansion--a result of these perverse incentives.

22. "Symposium: Agriculture and Urbanization", Journal of American Institute of Planners, Vol. XLI, No. 6, Nov. 1975*
-Presents several articles of impact of urbanization on prime agricultural lands. Discusses various ways in which preservation of agricultural lands are being attempted in California and New York.

Audio-Visuals

1. Slide-tape set - "Protecting Wisconsin Farm Land", BAVI, 1975, rental $20.00*(4)
-Presents arguments on why farm land should be preserved. Asks "what lands should be protected? and who should decide?"

C. Mining - Metallic and Non-Metallic Deposits

Publications

1. Roshard, Mary, "Questions and Answers: Mining and Minerals in Wisconsin", UW-Extension, Geological and Natural History Survey, Madison, 1975, 2 pages*(13)
   -Series of questions and answers providing information on Wisconsin mining practices, mineral resources, mining laws, and legislation.

2. Barrows, Dick, M.E. Ostrom, and John Preston, "Mining on Your Land?", UW-Extension, Geological and Natural History Survey, Special Report #3, Madison, March 1975, 10 pages*(13)
   -Pamphlet providing summary information for landowners on mineral leases, prospecting agreements, and other mineral transactions.

3. McKeever, Peter E., and John Preston, "Mineral Prospecting and Mining Transactions", UW-Extension, Geological and Natural History Survey, Information Circular #23, Madison, March 1975, 113 pages**(13)
   -Provides examples and discussion of metallic and non-metallic prospecting agreements, mining leases, and alternative transactions. It is intended to serve as a guide for reference in the preparation of such documents.

4. Friz, Thomas O., John Preston, and Eric Strauss, "Model Mineral Reservation and Mine Zoning Ordinance", UW-Extension, Geological and Natural History Survey, Information Circular #24, Madison, Nov. 1974, 43 pages*(13)
   -Presents a model zoning ordinance intended for Wisconsin counties wishing to use land use regulations to control mineral extraction. Provides for the reservation of minerals, their orderly development, and for the ultimate rehabilitation of the land consistent with environmental, economic, and social factors.

5. Barkin, Tom, and John Preston, "Mineral Rights in Wisconsin", UW-Extension, Geological and Natural History Survey, Information Circular #25, Madison, Nov. 1974, 11 pages*(13)
   -The report provides information on surface rights and contrasts them with mineral rights. It defines the mineral right and places it in the context of laws to which it belongs. Also, it describes Chapter 260 of Wisconsin Laws of 1973, which was enacted to provide for registration and identification of mineral right ownership, and provides answers to some of the most commonly asked questions in regard to mineral rights.

6. Fritz, Thomas O., "Mineral Resources, Mining, and Land Use Planning in Wisconsin", UW-Extension Geological and Natural History Survey, Information Circular #26, Madison, Feb. 1975, 61 pages*(13)
-Provides general background information and answers to questions on minerals, mineral deposits, mineral economics, mineral production, mined land reclamation, and mining as a part of the land use planning concept. In the context of Wisconsin, it discusses the nature, occurrence, and distribution of mineral deposits, the value of the mineral industry, the reclamation of the land, and mining as a temporary use of the land which can be made a part of a multi-sequential land use plan.

7. Barrows, Richard, Kenneth Erickson, John Strasma, and Richard C. Bishop, "Mineral Taxation: Alternatives for Wisconsin", UW-Extension, Cooperative Extension Service, Ag.Economics Staff Paper Series #93, Madison, Jan. 1975, 14 pages**(3)
-Provides basic understanding of the economics of mining operations and presents discussion on the issues and alternatives in mineral taxation.

8. Barrows, Richaard L., et al, "Wisconsin Natural Resource Policy Issues: An Economic Perspective", Center for Resource Policy Studies, UW-Madison Working Paper #6, Madison, July 1973, 320 pages* (Available from: Center for Resource Policy Studies, UW-Madison, Madison, Wisconsin 53706, single copy--free, multiple copies $1.00 each)
-Recommends various public policies for guiding the use of those land resources which are critical to the economic activities of agriculture, forestry, and mining in Wisconsin.

9. "Conference Report - Effects of Mining on Rusk County, Wisconsin", sponsored by Mount Senario College, Ladysmith, Wisconsin and Institute for Environmental Studies, Madison, Wisconsin, July 12, 1974, 29 pages*(7)

10. "What Mining Means to the United States", Washington, D.C., June 1972, 20 pages (Available from: American Mining Congress, 1100 Ring Building, Washington, D.C., 20036)*
-Presents a basic description of the mining industry, the importance of various minerals, and the role they play in American life.

11. "Rapid Growth from Energy Projects: Ideas for State and Local Action", Dept. of Housing and Urban Development, Washington, D.C., March 1976, 59 pages**(11)
-Shows community impact of large-scale energy projects (e.g. coal mines, oil drilling), presents ideas for courses of action among communities based on actual experience, and points out various sources of help.

12. "Zoning and Financial Incentives for Mining", Report to the Wisconsin State Legislature 1976 (in press)** (16)

13. Environmental Impact Statement of Ladysmith Copper Mine (DNR)* (16)

14. "Report on Mineral and Water Resources in Wisconsin", 1976 (in press)* (16)
-Senate report on Wisconsin's resources, stemming from a study request made by Sen. William Proxmire (D-Wis).

15. "Mining and Mining Taxation in Wisconsin", Wisconsin Legislative Council, Research Bulletin #74-11 Madison, September 1974, 20 pages* (Available: Wisconsin Legislative Council, State Capitol Bldg., Madison, WI 53702)
-Presents basic information on some of the fundamental aspects of mining taxation in Wisconsin. Included are (1) evaluation of the present system; (2) how it evolved along different lines for metallic and non-metallic mining; (3) the composite tax picture including indirect taxes.

Audio Visuals

1. Film - "Moving Earth - The Story of Mined Land Subsidence Control", BAVI #0049, 1975, 30 minutes, rental $4.00* (4)
-Describes the problem of subsidence (sinking and shifting of earth over underground abandoned mine areas). Visits test sites and includes some commentary by citizens and mining personnel.

2. Film - "Copper, Steward of the Nation", BAVI #6453, 1959, 12 minutes, rental $5.50* (4)
-Details the steps and equipment by which a basic metal is mined. Explains the crushing and grinding of ore, the floatation process, the technicalities in blister copper, electrolysis and casting operations.

3. Film - "The Minerals Challenge", BAVI #7614, 1970, 30 minutes, rental $3.00* (4)
-Describes how techniques are utilized to maximize recovery of the nation's ever-increasing needs for tools, metals and other mineral materials. Reveals how technology enables the use of low-grade and previously marginal deposits in terms of conservation.

4. Film - "Minerals", BAVI #4999, 1960, 9 minutes, rental $4.75*(4)
-Explains how minerals are mined using examples of various minerals (iron, copper, salt, clay, oil, etc.). Stresses the use of metal in our daily lives, at home, at play, in decorating, and in traveling.

5. Film - "Fahrenheit 3300", Bureau of Mines, #270, 28 minutes, 1976* (14)
-Vivid scenes of high-temperature industrial processes form the framework for the story of modern refractories--manmade, non-metallic substances that are indispensible whenever

extreme heat must be harnessed to transform mineral ores into metals we need. Concludes that the key to mineral resource conservation may well rest in man's ability to develop new refractory materials that will enable him to improve his refinery technology through better management of heat and heat processes.

6. Film - "Mission: Technology" Bureau of Mines, #276, 27 minutes, 1976*(14)
   -Shows how Bureau of Mines, through science and technology, works to meet the challenges of America's ever-changing mineral resource needs. Depicts highlights of Bureau's major accomplishments from its creation in 1910 to the present. Relates how Bureau-developed techniques make it possible to recycle some of the enormous amounts of urban/industrial wastes generated each year. Explains other Bureau work aimed at correcting environmental damage caused by previous mineral extraction and processing operations.

7. Film - "Lead From Mine to Metal", Bureau of Mine, #245, 28 minutes, 1976*(14)
   -Depicts the mining, milling, smelting, refining, and manufacturing of finished products from lead. Explains the various steps in obtaining lead, from the exploration of the ore deposits to the finished metal.

8. Film - "Copper--the Oldest Modern Metal", Bureau of Mines, #256, 27 minutes, 1976*(14)
   -Shows the latest technology in mining, processing, and fabricating copper and shows the many uses of the metal in the world today. Describes how copper ore is mined underground and in open pits, how it is concentrated and smelted into metal, and how it is refined and fabricated.

9. Film - "The Extraordinary World of Zinc", Bureau of Mines, #262, 28 minutes, 1976*(14)
   -Entire zinc-processing cycle is explained with on-site photography of mining, milling, concentrating, roasting, sintering, and smelting operations. Depicts the many uses of zinc in the world today.

10. Film - "Lead in Motion", Bureau of Mines, #277, 20 minutes, 1976*(14)
    -Explains the role of lead in our daily lives--how its ore minerals are extracted from the earth, and in successive steps are prepared for smelting and refining; how lead's commercial uses span a spectrum encompassing radiation absorption in nuclear applications, in automobile uses, in architecture, etc.

11. Film - "Pennsylvania and Its Natural Resources", Bureau of Mines, #272, 28 minutes*(14)
-Depicts how one of the oldest states in the Union conserves its natural resources to assure a heritage for future generations. Shows how a conservation philosophy combines the wise use of bountiful resources with an ardor for renewal and restoration.

12. Film - "Washington and Its Natural Resources", Bureau of Mines, #246, 27 minutes, 1976*(14)
-Shows Washington's natural wealth in forests, land, minerals, wildlife, and water and relates how conservation efforts and resource utilization efforts are reconciled.

D. Land Use Around Public Facilities

Publications

1. "A Guide for Land Use Planning Around Airports in Wisconsin", prepared by Wisconsin Dept. of Transportation, Division of Aeronautics and Planning, Madison, WI, 1976, 31 pages*(1)
   -Describes different approaches that can be taken and tools that can be used by "locals" to promote compatible land use near airports; also provides information for assessing the impact of the airport on the community.

2. "A Guide for Interchange Area Planning in Wisconsin", Wisconsin Dept. of Transportation and UW-Extension, Madison, May 1974, 38 pages*(1)
   -Guide outlines the problems which can accompany uncontrolled growth in highway interchange areas, and recommends sources of assistance and methods of planning available to local agencies in guiding sound land development.

3. "Wisconsin State Airport System Plan: A Synopsis", Wisconsin State Dept. of Transportation, Madison, 1975, 63 pages**(16)
   -Presents Wisconsin's State Airport System Plan which dilineates aviation facility needs in Wisconsin for the next 20 years.

4. "Major Airports and Their Effects on Regional Planning", U.S. Department of Housing and Urban Development, Washington, D.C., 1974, 22 pages, 60¢*(11)
   -Discussion and analysis of the impact of major airports and their infrastructure on land use. Gives particular emphasis to the recognition and alleviation of environmental problems caused by aircraft noise.

Audio-Visuals

1. Film - "Land Use at Interchanges", BAVI #8375, 1972, 22 minutes, rental $3.00*(4)
   -Shows why advance planning and strict controls are important for effective highway interchange development. Presents good/bad examples of interchanges along rural and urban highways, discusses specific problems (e.g. traffic tie-ups, commercial development), and gives practical suggestions for planning interchanges.

E. Land Use Adjacent to Highways and the Protection of Scenic Beauty

Publications

1. "Wisconsin Rustic Roads", Wisconsin Dept. of Transportation, Brochure (Available from: Rustic Roads Board, DOT, 4802 Sheboygan Avenue, Madison, Wisconsin 53702)*
   -Brochure explaining Rustic Roads Program. Presents procedure town/county should follow to get roads officially designated as rustic roads.

2. "A Guide for Interchange Area Planning in Wisconsin", Wisconsin Dept. of Transportation and UW-Extension, Madison, May 1974, 38 pages*(1)
   -Outlines the problems that accompany uncontrolled growth in highway interchange areas, and recommends sources of assistance and methods of planning available to local agencies in guiding sound land development.

3. "A Market Study of Properties Covered by Scenic Easement Along the Great River Road in Vernon and Pierce Counties", Special Report #5, Dept. of Transportation, Madison, October, 1967*(16)
   -Presents interviews with owners of residential, commercial, and agricultural property adjacent to the Great River Road to determine the economic effects of scenic easements.

4. "Guidelines for Developing Rural Bikeways", Wisconsin DNR and DOT, 51 pages, Madison, March 1975, single copy--free*(5)
   -Consists of two parts: Part I provides general information on the use of the bicycle and information on past, present and future activity on bike route and facility development. Part II presents guidelines with the primary focus on physical design to promote safety and utility of bike routes.

5. "New Switches on Old Abandoned Railroads", (Available from: Bicycle Manufacturers Association, 1101 15th St., N.W., Washington, D.C. 20005), 6 pages, free*
   -Explanation on how abandoned railroad right-of-ways can be used for biking and hiking trails. Discusses problems of obtaining title to the property, funding, maintenance, and repeated use of bikeway facilities.

6. "From Rails to Trails", Citizens Advisory Committee on Environmental Quality", Washington, D.C., 1975*(11)
   -Report to President Ford urging the conversion of thousands of miles of abandoned railroad tracks into hiking, biking, and skiing trails.

7. "Bikeways, State of the Art, 1974", 97 pages, Springfield, Virginia, 1974, (Available from: National Technical Informational Service, Springfield, Virginia, 22151), free**
-Excellent update on the latest design standards and construction practices for bikeways in the U.S.; solid information for bikeway developers.

8. "A Proposed Program for Scenic Roads and Parkways", prepared by U.S. Dept. of Commerce for President's Council on Recreation and Natural Beauty, Washington, D.C., June 1966, 196 pages, cost $2.75*(11)
-Describes what scenic roads are, their benefits to America, and how they are planned and developed. Discusses how roads can be integrated with environment for scenic beauty.

9. Highway Environment Reference Book, Federal Highway Administration, Dept. of Transportation, Washington, D.C., Nov. 1970, 58+ pages*(11)
-Discussion of the numerous highway program elements which are responsive and applicable to the nationwide concern for improved environmental quality.

10. Cousins, Kathryn, and Bob Heightche, Land Use and Transportation, Highways Users Federation, Transportation Development Division, Technical Report #11, Washington, D.C., March 1975 (Available from: Highway Users Federation, 1776 Massachusetts Avenue, N.W., Washington D.C., 20036, $1.00*(1)
-Examines recent experiences with techniques to coordinate transportation facilities with surrounding land uses. Their techniques give particular emphasis to the preservation of the natural and human environment, and a concern for conserving energy.

11. "Bicycles and Pedestrian Facilities in the Federal Highway Program", U.S. Dept. of Transportation, Washington, D.C., 12 pages, 45¢(11)
-Describes the funding available for bikeways construction under the Federal Highway Act of 1973, as amended, and how to go about securing federal aid for your project.

Audio-Visuals

1. Slide-tape set - "Natural Roadsides", BAVI 1976, cost $22.50 a set*(4)
-Reviews benefits of natural roadsides and demonstrates basic steps involved in establishing a local program. Emphasizes natural aesthetics (i.e. native beauty, wild flowers, insects, birds) and with this the reduction in roadside maintenance and costs. Note: natural roadsides flyers, information sheets, and project packets are also available.

2. Film - "Land Betrayed", BAVI #6868, 1967, 10 min., $4.75*(4)
-Explores the nationwide problems of ugliness. Suggests how every community and individual can help to eliminate it and replace it with beauty.

3. Film - "Epilogue", BAVI #9028, 1973, 16 min., $9.25*(4)
-Uses sophisticated camera techniques to compare and contrast various aspects of modern pollution and scenic beauty. Shows scenic views, historical shots, people in their various activities, scientific experimental teams, and a view of the earth from the Apollo 8 space flight. An "Awareness" film.

4. Film - "Bayfield - Face of a Community", BAVI #1776, 1969, 20 min., $3.00*(4)
-Presents many different features of the town of Bayfield which are scenic, historic and attractive. Constrasts with some of the ugly areas of the town. Concludes with suggestions about community planning, use of "design districts" and other methods of dealing with some of the problems the town has.

5. Film - "Suzanne's Lament", BAVI #9061, 1973, 38 min., $15.25*(4)
-"An Audio Visual Concert" showing the incomparable beauty of Alaska's landscape and the inroads of man's degradation into it. Most of the sound track is contemporary music featuring such artists as Dylan, Crosby-Stills, Leonard Cohen, and the Beatles.

6. Film - "What's Happening to Our Landscape?", BAVI #6366, 1967, 20 min., $3.00*(4)
-Contrasts beauty of Wisconsin's landscape with the ugliness of man-made clutter such as billboards, electric poles, junkyards, etc. Discusses role of communities and state agencies in preserving beauty and resources by planning and zoning.

7. Film - "Land Use at Interchanges", BAVI #8375, 1972, 22 min., $3.00*(4)
-Shows why advance planning and strict controls are important for effective highway interchange development. Presents both good and horrible examples of interchanges along rural and urban highways, discusses specific problems (e.g. traffic tie-ups, commercial development), and gives practical suggestions for planning interchanges.

F. Floodplains and Shorelands

Publications

1. Vandre, Wayne, "Land Use Changes and Their Impact on Local Tax Structure" - A Study of the Floodway and Floodplain Areas of Prairie Du Chien Township, Crawford County, UW-Extension, Crawford County, March 1976, 8 pages (Available from: Wayne Vandre, 111 W. Dunn, P.O. Box 269, Prairie Du Chien, Wisconsin 53821)**
   -Study shows that a change in tax rates, due to partial or total loss of favorable property (e.g. Floodplain and Shoreland Ordinance) is insignificant. Thus, the impact on local tax rates should not be used as the criteria to dermine land use, but more critical factors such as environmental quality, community health and safety, and social impacts should be criteria upon which correct land use is based.

2. Hadley, David W., "Shoreline Erosion in Southeastern Wisconsin", UW-Extension, Geological and Natural History Survey, Madison, Feb. 1976, 33 pages*(13)
   -Describes the natural processes at work along the shoreline which cause erosion, discusses possible remedial measures, and presents several alternatives which could be used (e.g. structural setback and zoning requirements) to deal with the problem of erosion.

3. "Questions and Answers About Floodplain Management", 1975, Wisconsin DNR, Madison, pamphlet*(5)
   -Series of questions and answers dealing with the issue of floodplain management.

4. "Watch Out for Substandard Property", Wisc. DNR, Madison, 1974*(5)
   -Explains what a substandard lot is--one that does not meet the requirements of local ordinances and state rules relating to lot width, lot area, soil texture, depth to ground water or bedrock, slope or location in the floodplain of a river or stream.

5. Yanggen, Douglas A., "The Use of Detailed Soils Information For Delineating and Regulating Flood Plains: Legal and Administrative Considerations", UW-Madison, 1972, 68 pages, (loan copy available from Water Resources Library, UW-Madison, Madison, Wisconsin 53706)
   -Describes the advantages and limitations of using soils information for delineation of floodplains; contains a draft floodplains ordinance with descriptive commentary.

6. "Suggestions for Prospective Buyers of Waterfront Property in Rural Wisconsin", Wisc. DNR, Madison, 1974*(5)
-Presents various factors that prospective buyers should be aware of (e.g. shoreland and floodplain zoning) before purchasing waterfront property.

7. *Shoreland Regulation Administration Manual*, Wisc. DNR, Madison, Oct. 1975, 65 pages**(16)
-Manual is intended to assist county officials in the administration of a shoreland management program--providing information and assistance in such areas as: issuing permits, inspecting construction work, correcting violations, and authorizing necessary changes in the regulations.

8. Kusler, Jon A., and Thomas E. Lee, "Regulations for Floodplains", Planning Advisory Service Report #227, Chicago, Feb. 1972, 68 pages (Available from: Am. Soc. of Planning Officials, 1313 East Sixteenth St., Chicago, Illinois 60637)**
-Discusses land use controls, primarily use of zoning ordinances, in floodplains management. Presents major elements of a floodplain management program, discusses case law to date on floodplain regulations, and includes a model local floodplain zoning ordinance.

9. "Help Yourself - Great Lakes Shoreline: Problems and Solutions", (Available from: U.S. Army Corps of Engineers, North Central District, 219 South Dearborn St., Chicago, Illinois 60604)*
-Explains problem of shore erosion along Great Lakes shoreline, and gives information on alternative shore protection measures--their advantages and disadvantages.

10. Lee, Thomas M., "The Answers to Your Questions about Flood Plain Management", *The Municipality*, Jan. 1968, pages 337-338* (6)
-Discusses the nature of and need for floodplains regulations. Explains the Wisconsin Floodplain zoning law which went into effect Jan. 1968.

11. Lee, Thomas M., "Management Problems in Floodplain Areas", *Journal of Waterways, Harbors, and Coastal Engineering Division*, Proceeedings of the American Society of Civil Engineers, Vol. 98, August 1972, pages 357-373**(6)
-Explains that the complexity of a successfull floodplain management program is beyond the scope of local units of government. Maintains that a successfull program requires a uniform and coordinated joint local-state-federal effort.

12. ____________________, "Effects of Transportation Planning on Floodplain Management", *Journal of Hydraulics Division*,

ASCE, Vol. 98, March 1972, pages 475-488**(6)
-Describes the interrelationships of transportation systems and floodplain management. Transportation systems, as one of the major facilities affecting and affected by floodplain management programs are analyzed, with methods presented to provide for a coordinated transportation-flood plain management approach.

13. ______________________, "Effects of Floodplain and Shoreland Regulations on Fish and Wildlife", Presented at August 12-14, 1974 Soil Conservation Society of America Conference, Syracuse, New York, 20 pages*(6)
-Basic elements of floodplain and shoreland regulations are discussed. Points out that floodplain management under current practices of several states and recent federal guidelines do not adequately control lands that have ecological values (e.g. wetlands, fish spawning beds). Argues that these practices and guidelines will accelerate destruction of flood prone areas and increase the flood damage potential.

14. "Regulation of Flood Hazard Areas to Reduce Floods", Vol. 1, Parts I-IV, U.S. Water Resources Council, Washington, D.C., cost--$2.50)** (Available from: WRC, 2120 L St., N.W., Washington, D.C. 20037)
-Presents federal rules and regulations pertaining to floodplains.

15. "Regulation of Flood Hazard Areas to Reduce Floods", Vol. 2, Parts V-VI, U.S. Water Resources Council, Washington, D.C., cost--$2.50** (Available from: WRC, 2120 L St., N.W., Washington, D.C. 20037)

16. Flood Damage Prevention: An Indexed Bibliography, 7th Edition, Tennessee Valley Authority, Technical Library, Knoxville, Tennessee, August 1973, 53 pages
-New, Updated, revised edition available Jan. 1977, (Available: Contact John W. Weatheis, University of Tennesse-Knoxville, Water Resources Research Center, Knoxville, Tennessee)
-Bibliography emphasizing flood damage prevention and floodplain regulations.

17. Lee, Thomas M., "A Report to Floyd Stautz, Andrew Damon, and Anthony Earl on Service of Problems in the Floodplain and Shoreland Management Program", Internal Report of Department of Natural Resources, June 25, 1976, 14+ pages*
-Presents author's contentions and arguments on the problems in the State's Floodplain and Shoreland Management Program. States that the various problems of these programs can be generalized into two categories: State and Federal.

Audio Visuals

1. Film - "Flooding River: A Study of Riverine Ecology", BAVI #8791, 1972, 34 minutes., rental $14.75*(4)
   -Discusses the fact that rivers are self-sustaining and shows the value of flooding to the plant and animal communities of the river. Argues against flood control projects (e.g., dams, levees) since they disrupt the ecological balance of the river.

2. Film - "What We Can Do About Floods", BAVI #0488, 1961, 20 min., rental $3.00*(4)
   -Dramatically documents Wisconsin's recurring flood problem in cities and countryside. Presents case for floodplain zoning. Presents Merrill, Wisconsin, as case for good flood control practices, where center of town (floodplain area) is devoted to recreational areas and parks--not particularly damaged by annual floods.

G. Environmental Corridors

Publications

1. Lewis, Philip H., Jr., "Quality Corridors for Wisconsin", Landscape Architecture, Jan. 1964, pages 100-107*(16)
   -Presents concept of "environmental corridors." Shows that once these areas are inventoried and mapped, and their values are precisely identified, they encourage planning for total environmental development, rather than for piecemeal, haphazard development.

2. Hovland, Maurice J., and Francis D. Hole, "The Kettle Morraine--Its Origin and Conservation: A Study Guide", U.W. Extension, Madison Cooperative Extension Service, 12 pages, 15¢*(2)
   -Describes Kettle Morraine area and how it was formed. A good example of the concept of "environmental corridors".

3. Lewis, Phillip H., Jr., "Quality Corridors For Wisconsin", Landscape Architecture, January 1964. pp. 100-107*(1)
   -Depicts Wisconsin efforts in detailed landscape analysis and data inventory in early 1960's. Presents techniques utilized in this study. Primary goal of the study was to identify, preserve, and wisely develop state-wide and country-wide landscape patterns.

Audio-Visuals

NOTE: (1) A great deal of audio-visual education programs are available at Environmental Awareness Center, UW-Madison. It should be noted that these programs can only be used at the Center, due to its unique audio-visual presentational format.

(2) An Environmental Awareness Center may be established at Appleton.

(3) In Milwaukee, the old Nike Missle Site is being studied as a potential "environmental park".

H. Solid Waste

Publications

1. Porter, Warren, "Solid Waste and You", UW-Madison, Cooperative Extension Program, G2229, May 1971, 4 pages, cost--5¢* (2)
-Brief brochure describing current solid waste problem, what the State of Wisconsin is presently doing in this area, and what the local citizen can do to help alleviate this situation.

2. Beatty, Marvin T., Janice A. Gams, et al, "Technical Guide for Solid Waste Management - A Compendium of Published and Original Material", UW-Extension, Madison Publication #G2427, 62 pages**(2)
-Good technical treatment of preparing plans, organizational and financial aspects, and designing and managing solid waste management systems.

3. Porter, Warren K., Douglas A. Yanggen, et al, "Planning for Cooperative Solid Waste Management in Wisconsin", UW-Extension, Madison, Publication #G2426, 12+ pages*(2)
-Describes solid waste management in physical and planning terms. Written to help local governments organize and systematically plan a cooperative-areawide approach to solid waste management.

4. Barrows, Richard L., Thomas P. Kunes, and Douglas A. Yanggen, "Implementing Cooperative Solid Waste Management in Wisconsin", UW-Extension, Madison, 57 pages**(2)
-Guide written for the purpose of assisting in moving a cooperative-areawide solid waste management system from the planning and design stages into the service or operation phase. Presents several alternatives of cooperative systems, various legal and financial arrangements/requirements, and the policy-making and administration responsibilities in a cooperative solid waste management system.

5. "Wisconsin Solid Waste Recycling", by the Board of Engineering Consultants Executive Summary of Governor's Recycling Task Force on Solid Waste, Madison, Wisc., May 1973, 130+ pages**(16)
-Design plan for a state-wide, technically and economically sound, solid waste recycling program. Includes recommendations for markets, methods, facilities, enabling legislation, and institutional arrangements.

6. Ham, Robert K., and Thomas C. Rooney, "Reconnaissance Study on Solid Waste Disposal", Bureau of Community Services, Wisconsin Dept. of Local Affairs and Development, 123 W. Washington Ave., Madison, Wisc. 53702, 95 pages*

-Examines Wisconsin's solid waste problem and recommends possible solutions. Among the findings, it was found that a number of communities were confused about the direction they should take regarding the waste disposal problem--various measures were proposed to redefine role of the various institutions involved in waste disposal.

7. "How Sauk County Did It", Program and Staff Development, UW-Extension, 4 pages, Madison, 1975* (2)
   -Sauk County developed one of the first county-wide landfill programs, summarized in this flyer.

8. Reindl, J., "Energy from Solid Waste", UW-Extension, Madison, 1976, 4 pages* (1)
   -A brief introduction into the use of solid waste as an energy source.

9. "Closing the Circle"*
   -A bi-monthly newsletter on solid waste in Wisconsin is published by UW-Extension at no cost to subscribers. Environmental Resources Unit, 1815 University Avenue, Madison, WI 53706.

10. Report on the State of Wisconsin Solid Waste Management Plan", Wisconsin Department of Natural Resources, Madison, 1974, 104 pages* (5)
    -A good guide to current solid waste management practices in Wisconsin along with descriptions of alternative and applicable Wisconsin State laws.

11. "Fact Sheets on Solid Waste", UW-Extension Environmental Resources Unit, 1976 (In press)*(16)
    -Fact sheets on solid waste disposal and collection systems.

12. "The States and Solid Waste Management: OUR EFFLUENT SOCIETY", Council of State Governments, Feb. 1974, 41 pages (Available from: The Council of State Governments, Midwestern Office, 203 N. Wabash Avenue, Chicago, Illinois, 60601, cost--$3.00)**
    -Gives perspective on the governmental problems related to solid waste management practices in the U.S. The report describes intergovernmental needs and innovative solutions to these major problems.

13. "The Land Pinch: Where Can We Put Our Wastes?" Conservation Foundation Letter, May 1973, 8 pages*
    -Discusses the problem of what to do with solid waste. Presents brief case history of attempts of District of Columbia to find an acceptable sanitary land fill site. Discusses the institutional problems and the advantages and disadvantages of regionalism as a viable solution.

14. "Solid Waste Management - (1) Areawide Approaches", National Association of Counties Research Foundation, Washington, D.C., 1969, 16 pages*(9)
-Presents the relationship of solid waste management to environmental quality control, the need for an areawide approach to insure a comprehensive program, and the advantages of intergovernmental cooperation.

15. "Solid Waste Management - (2) Legal Authority", National Association of Counties Research Foundation, 1969, Washington, D.C., 20 pages*(9)
-Discusses the legal authority that is needed by state and local solid wastes management programs--state laws, local chapters, ordinances, resolutions, etc.

16. "Solid Waste Management - (3) Planning", National Association of Counties Research Foundation, Washington, D.C., 1969, 12 pages*(9)
-Describes the planning process in solid wastes management, the need for coordinating solid waste plans with other plans, and new planning tools.

17. "Solid Waste Management - (4) Organization, National Association of Counties Research Foundation, Washington, D.C., 1969, 16 pages*(9)
-Discusses the assignment of operating responsibilities and local government functions in solid waste management, and the various types of organizational structures that are available.

18. "Solid Waste Management - (5) Design and Operation", National Association of Counties Research Foundation, Washington, D.C., 1969, 28 pages*(9)
-A layman's discussion of the design and operation of such functions as storage, collection, transfer, incineration, composting, and sanitary land fill.

19. "Solid Waste Management - (6) Financing", National Association of Counties Research Foundation, Washington, D.C., 1969, 16 pages*(9)
-A review and analysis of the full range of financing methods for solid wastes management, including taxes, bonds, loans, and service charges; also presents financial planning and purchasing techniques.

20. "Solid Waste Management - (7) Technical and Financial Assistance", National Association of Counties Research Foundation, Washington, D.C., 1969, 16 pages*(9)
-A review of federal, state, and private financial and technical assistance for solid wastes management.

21. "Solid Waste Management - (8) Citizen Support", National Association of Counties Research Foundation, Washington, D.C., 1969, 20 pages*(9)
-A discussion of the methods helpful in generating and maintaining community-wide public support including advisory committees.

22. "Solid Waste Management - (9) Personnel", National Association of Counties Research Foundation, Washington, 1969, 20 pages*(9)
-A discussion of personnel topics such as recruitment, compensation, safety, labor-relations, training, and use of consultants in field of solid wastes management.

23. "Solid Waste Management - (10) Action Plan and Bibliography", National Association of Counties Research Foundation, Washington, D.C., 1969, 16 pages*(9)
-Gives reommended local, state, and federal actions in solid wastes management; also presents a four page bibliography on the topic of solid wastes management.

24. "Available Information Materials", U.S. Environmental Protection Agency, Cincinnati, Ohio 45268, August 1975, 34 p.*
-This document lists the publications of the Federal government on solid waste topics; latest issue listed about 300 publications available at no cost and several hundred additional, more technical publications available at a relatively low cost. Also listed are films, exhibits, and informational packets.

25. Coffey, Patrick, "The Effect of Regional Recycling and Disposal on the Environmental Impact of Landfilling", IES, UW-Madison, IES Report #50, August 1975, 26 pages* (7)
-Report attempts to evaluate how a regional solid waste management-recycling program would affect the environmental impact of land filling.

Audio-Visuals

1. Film - "3rd Pollution", BAVI #6928, 1966, 22 min. rental $8.50*(4)
-Considers solid waste management and the various management alternatives available to communities, such as sanitary land fills, smokeless incinerators, composting, salvage and recycling. Emphasizes the expense and technical challenge in elimination of air and water pollution when coping with solid waste.

2. Film - "Wisconsin Faces a Solid Waste Problem", BAVI #8086, 1972, 23 min., rental $3.00* (4)
-Presents some of Wisconsin's solid waste disposal problems and what some communities are doing about them. Discusses various methods available for dealing with the solid wastes problem and suggests how a community can go about organizing and planning to solve its own solid waste disposal problem.

3. Film - "Man Builds, Man Destroys, Through the Mill Once More", BAVI #0030, 1974, 30 min., rental $9.25*(4)
   -Presents some of on-going activities in the area of recycling. Looks at various counties and explains Wisconsin's Cryogenic Program.

4. "Available Information Materials", U.S. EPA, Cincinnati, Ohio 45268
   -Lists films available from the federal government on solid waste.

5. Film - "Wealth Out of Waste", BAVI #9533, 1975, 27 min., rental $4.00*(4)
   -Presents some of the nation's most awesome waste problems. The depicts various new technologies and the feasibility of recycling wastes and junk. More specific and technical than the film "Man Builds, Man Destroys". May be good film for community officials who are considering solid waste problems.

6. Model - "Land Fill Model" -- Environmental Resource Unit, UW-Extension (forthcoming)
   -A three-dimensional model of a sanitary landfill which explains the critical features.

I. Heritage Areas Program (formerly CRIP)

Publications

1. "Douglas County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, May 1975, 67 pages*(7)(8)
   -Presents the identification and delineation of critical and important resources in Douglas County. Also presents methodology utilized to derive this information.

2. "Juneau County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, Feb. 1975, 65 pages*(7)(8)
   -Presents the identification and delineation of critical and important resources in Juneau County. Also presents methodology utilized to derive this information.

3. "Kenosha County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, May 1975, 37 pages*(7)(8)
   -Presents the identification and delineation of critical and important resources in Kenosha County. Also presents methodology utilized to derive this information.

4. "Kewaunee County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, May 1975, 59 pages*(7)(8)
   -Presents the identification and delineation of critical and important resources in Kewaunee County. Also presents methodology utilized to derive this information.

5. "Oconto County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, May 1975, 55 pages*(7)(8)
   -Presents the identification and delineation of critical and important resources in Oconto County. Also presents methodology utilized to derive this information.

6. "Ozaukee County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, May 1975, 32 pages*(7)(8)
   -Presents the identification and delineation of critical and important resources in Ozaukee County. Also presents methodology utilized to derive this information.

7. "Waukesha County - Critical Resource Information Booklet", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, May 1975, 50 pages*(7)(8)

-Presents the identification and delineation of critical and important resources in Waukesha County. Also presents methodology utilized to derive this information.

8. "Heritage Areas Program - Guidebook for Workshop Participants - 1976", Heritage Areas Program, Madison 1976*(8)
-Explains Heritage Areas Program--its background, objectives, how it works, and the uses of gathered information.

9. "Documentation of Environmental Change Related to the Columbia Electric Generating Station", 5th Semi-Annual Report, Fall-Winter 1973-74, Environmental Monitoring and Data Acquisition Group, IES, Report #46, Madison, April 1975, 157 pages***(7)
-Highly technical and specific to Columbia site; shows environmental impact and environmental change due to plant construction.

10. "Data Needs and Data Gathering for Areas of Critical Environmental Concern: Part 1: Summary Report", Center for Geographic Analysis, IES, UW-Madison, IES Report #53, Sept. 1975, 130 pages**(7)
-This summary report surveys critical area studies underway or completed, reviews various data needs and data-gathering approaches of states, and discusses the roles of local, state, Federal officials, private-interests, and the citizen in critical area data-gathering.

11. "Data Needs and Data Gathering for Areas of Critical Environmental Concern: Part 2: Selected Papers from State Programs", Center for Geographic Analysis, IES, UW-Madison, IES Report #54, Sept. 1975, 161 pages**(7)
-Presents data needs and data-gathering approaches for implementing critical area programs. Presents what is being done in states throughout the U.S. in this area.

12. "Data Needs and Data Gathering for Areas of Critical Environmental Concern: Part 3: Executive Statement", Center for Geographic Analysis, IES, UW-Madison, IES Report #55, Sept. 1975, 21 pages**(7)
-Contains recommendations for data gathering to meet state needs for the definition and management of areas of critical environmental concern.

13. "A Case Study of Citizen Participation in Resource Planning: the Crawford County Critical Resource Information Workshop", Environmental Monitoring and Data Acquisition Group, IES, UW-Madison, Jan. 1975, Report #44, 61 pages**(7)(8)
-Presents the identification and delineation of critical and important resources in Crawford County, along with

methodology utilized to derive this information.

14. "CRIP - Phase 1 Report: Concepts of Resource Definitions, Uses, and Measurement Criteria", Wisconsin Dept. of Administration, July 1973, Madison, 139 pages**(12)
-Presents definitions of "critical resources", the documentation of their important, and the exploration of a technique to ascertain their relative "criticality".

15. Kusler, Jon A., "CRIP - Special Data Requirements for Regulating of Lands of Statewide Concern", Report 2, Wisconsin Dept. of Administration, Madison, July 1973, 14 pages**(12)
-Investigates special data requirements and needs for regulating land resources of statewide concern through an analysis of court cases, use of questionnaires and telephone interviews throughout the nation, and on-site study of innovative regulatory programs for areas of critical statewide concern throughout the country.

16. Keyes, Dale L., and Umit Basoglu, "CRIP - Comparative Analysis of Sampling Designs for Geographical Data", Report 3, Wisconsin DOA, Madison, Oct. 1973, 28 pages*** (12)
-Interprets, analyzes, and assesses various spatial sampling techniques for use in geographical data collection.

17. Kuhlmey, Edward L., and David R. Laux, "CRIP - Data and Information: Needs and Availability for CRIP", Report 4, Wisconsin DOA, Madison, Oct. 1973, 35 pages***(12)
-Describes data needs for variables outlined in the Phase I Report.

18. Ellis, Max E., and Dennis C. Bunde, "CRIP - Processing and Analysis of Resource Data for CRIP", Report 5, Wisconsin DOA, Madison, Oct. 1973, 11 pages**(12)
-Addresses itself to the machine processing of data required by CRIP.

19. Fisher, L.T., and R. Thomsen, "CRIP - Extraction of Resource Data for CRIP", Report 6, Wisconsin DOA, Madison, Oct. 1973, 10 pages***(12)
-Describes a system under development for assembling, assimulating, and displaying natural resource data by using computer terminal assistance, interactive-mode programs, and some available special purpose computing equipment.

20. Chi, Judy C., "CRIP - A Summary of the CRIP Regional Seminars", Report 7, Wisc. DOA, Madison, Oct. 1973, 20 pages** (12)

-Discusses regional seminars which took place around the state regarding CRIP.

21. ______________________, "CRIP - Summary Report", Wisconsin Dept. of Administration, Madison, April 1974, 54 pages*(12)
-Presents short description of the Critical Resources Information Program (CRIP). Traces the development of the Program against a backdrop of growing resource depletion and outlines the state initiation in critical resources management.

22. "Wisconsin's Land: Facts and Issues", League of Women Voters, Inc., Madison, Wisconsin, August 1975, 75 pages, 75¢ each* (Available from: League of Women Voters of Wisconsin, 433 W. Washington Ave., Madison, Wisconsin 53703)
-Presents facts on some of the most critical areas of land use in Wisconsin and how the state government has or has not dealt with them.

23. "Special Issue: Historic Preservation in Small Communities", Small Town, March 1975, Vol. 5, No. 8, 34 pages (Available from: Small Towns Institute, P.O. Box 517, Ellensburg, Washington 98926)*
-Series of articles dealing with historic preservation in small communities -- its philosophy, the need for proper planning, and balance with economic development.

24. Thurow, Charles, William Toner, and Duncan Erley, Performance Controls for Sensitive Areas: A Practical Guide for Local Administrators, Washington Environmental Research Center, U.S. EPA, Washington, D.C., Doc. #PB 245 177, 290+ pages, March 1975 (Available from: National Technical Information Service, U.S. Dept. of Commerce, Springfield, Virginia 22151, $13.00)**
-Report is written to be used as a handbook by local planning officials in planning for and regulating the use of 5 distinct natural areas: (1) streams and creeks, (2) wetlands, (3) woodlands, (4) hillsides, (5) groundwater and acquifer recharge areas. Each section is devoted to the discussion of local regulation of land use in areas identified as "sensitive", and each area is discussed in terms of its ecology and value to the public, current regulatory practices, and recommended programs for regulating the area.

Audio-Visuals

1. Slide-tape set - "Wisconsin's Heritage", BAVI 1975,

purchase only: $29.00*(4)
-Shows several projects where government and private groups in Wisconsin are restoring and preserving unique natural areas and historic sites. Argues that it is up to the state's citizens to see that Wisconsin's heritage is to be preserved, and asks "Are we saving enough of the past?":

J. Electric Generating Facilities

Publications

1. "Documentation of Environmental Change Related to the Columbia Electric Generating Station", 5th Semi-Annual Report, Fall-Winter 1973-74, Environmental Monitoring and Data Acquisition Group, IES, Report #46, Madison, April 1975, 157 pages* (7)
   -Highly technical and specific to Columbia site; shows environmental impact and environmental change due to plant construction.

2. Buehring, W.A., et al, "Alternative Future Electric Generation Requirements for the State of Wisconsin", IES, Report #25, Madison, October 1974,* (7)

3. Foell, W.K., "The Wisconsin Energy Model: A Tool for Regional Energy Policy Analysis", IES, Report #35, Madison Nov. 1974, ** (7)

4. McMillan, Melville, "A Power Plant in Your Community", UW-Extension, Madison, Cooperative Extension Program, Publication #G2666, Jan. 1975, 17 pages* (2)
   -Presents impact of siting an electrical generating plant on the local community and the local environment, and describes avenues for community participation in the decision-making process of where the facility will be sited.

5. "Rapid Growth from Energy Projects - Ideas for State and Local Action", Dept. of Housing and Development, Office of Community Planning and Development, Washington, D.C., March 1976, 59 pages* (11)
   -Presents what the community impacts of energy projects are likely to be, provides ideas for actions among communities based on actual experiences, and points out various source of help for: information, planning, and financial assistance.

Murray, Bruce H. and Bernard J. Niemann, Jr., P.E.R.M. I.T.S. Methodology - Phase I. Madison: Landscapes Limited, (1972). 825 pp.*** Steenbock Memorial Library, U.W.

____________________, P.E.R.M. I.T.S. Methodology - Phase II. Madison: Landscapes Limited, (1975).*** Steenbock Memorial Library, U.W.

Murray, Bruce H. and Albert C. Tsao, Transmission Alignment Decision-Making: An Environmental Approach. Madison: Department of Landscape Architecture/Environmental Awareness Center, University of Wisconsin-Madison, 1972. 139pp** Steenbock Memorial Library, U.W.-Madison

Murray, Bruce H., Transmission Alignment Study - Phase II. Madison: Department of Landscape Architecture/Environmental Awareness Center, University of Wisconsin-Madison, 1974. 250 pp*** Steenbock Memorial Library, U.W.-Madison.

Murray, Bruce H. and Bernard J. Niemann, Jr., "TIMELESS: Transmission Implementation and Management for Environmental Location of Energy Systems." An article published in Aware (1972), pp. 3-6* Engineering Library, U.W.-Madison.

Niemann, Bernard J., Jr., Environmental Decision Alignment Process. Madison: Landscapes Limited, (1973). 246 pp.* Steenbock Memorial Library, U.W.-Madison.

Sirny, Rudolph F., Siting and Electrical Power Distribution, Fact Sheet. University of Wisconsin-Extension/Extension Energy Committee. Number 2G2781. 1976. 4 pp.* (2)

Audio-Visuals

1. Film - "Wisconsin's Air", BAVI #9326, 27 minutes, 1974* (4) -Discusses Wisconsin's program to comply with federal air pollution standards. Industry spokesmen relate problems and successes in meeting state emission limits at power plants, woodworking plants, founderies, paper mills. Concludes with a look at computer modeling and land use planning as future tools for air pollution control.

K. Recreation/Public Lands

Publications

1. Kusler, Jon A., "Public/Private Parks and Management of Private Lands for Park Protection", Center for Human Systems, IES, UW-Madison, IES Report #16, March 1974, 176 pages* (7)
   -Study presenting regulatory and non-regulatory techniques to guide and encourage private use of lands adjacent to park areas. Techniques presented attempt to simultaneously enhance or supplement the capability of parks to meet visitor needs, provide economic uses for adjacent lands, and protect parks from incompatible uses. Analysis of and recommendations on these simultaneous objectives are presented.

2. Barrows, Richard, and Monroe H. Rosner, "Who Pays for the Wild Rivers--An Anlysis of the National Park Service's Wild Rivers Program on Property Taxes in Washburn County", UW-Extension, Cooperative Extension Program, Ag. Econ. Staff Paper Series #110, Madison, Jan. 1976, 7 pages* (3)
   -Analysis of the impact of land removal from local tax rolls by public acquisition on local property taxes. Concludes that the impact of these public lands on property taxes is negligible.

3. Rosner, Monroe H., and Richard L. Barrows, "Public Land, Tax-exempt Land, and Property Taxes". UW-Extension, Research Bulletin #R2774, Madison, Jan. 1976, 31 pages* (2) (3)
   -Examines the impact of public lands or tax-exempt lands on property taxes. Concludes that public lands or tax-exempt lands have very little effect on property taxes.

4. "A Regional Study of Recreation Travel Behavior and Participation Patterns", Recreation Resources Center, UW-Extension, Cooperative Extension Program, Madison, May 1975 60 pages*
   -Studies the travel patterns and recreation activity interests of recreational travellers and users in a nine-state region of the Upper Midwest. It relates travel patterns, socio-economic characteristics, and recreation activities to regional recreational development, and points out that these various factors have regional implications for making resource recreation policy decisions.

5. "The Impact of the Apostle Islands National Lakeshore on Bayfield County", Sigurd Olson Institute of Envronmental Studies, June 1973, 12+ pages* (Available from: North-

land College, Ashland, Wisc. 54806)
-Study of the impact of the new Apostle Islands National Lakeshore on the local governmental institiutions of Bayfield County, Wisc. Includes general estimates of the magnitude of these major impacts, and make recommendations regarding local government and other government courses of action to deal with these impacts.

6. Hovland, Maurice J., and Francis D. Hole, "The Kettle Moraine - Its Origin and Conservation: A Study Guide", UW-Extension, Madison, Cooperative Extension Program, 12 pages, 15¢* (2)
-Description of the Kettle Moraine area and how it was formed.

7. "Outdoor Recreation Teamwork: For Resource Protection and Successful Developments", Wisconsin Chapter, Soil Conservation Society of America, 1973, 35 pages (Available from: SCSA Wisconsin Chapter, Box 5155, Madison, Wisc., 53705, $1.00)*
-Presents broad principles and general objectives regarding the setting for outdoor recreation, the need for supporting natural and other resources, and procedures to follow in evaluating new developments.

8. Outdoor Recreational Plan - Shawano County, UW-Extension, Shawano County, Jan. 1976, 110+ pages* (16)
-Reviews and updates original outdoor recreation plan of 1970; presents inventory of available outdoor recreational activities and projects/recommends what is need in the present/future.

9. Cohee, Melville H., Impact of State Land Ownership on Local Economy in Wisconsin, Technical Bulletin No. 80, Dept. of Natural Resources, Madison, Wisc., 1974, 96 p* (5)

10. Rosner, Monroe, Fiscal Impact Model: A Simulation Approach to Analyzing the Local Fiscal Impact of Second-Home Development, Lake Superior Project, Institute for Environmental Studies, University of Wisconsin, Madison, May 15, 1974, (subject to revision) 13 p.* (7)

11. "Guidelines for Developing Rural Bikeways", Wisconsin DNR and DOT, 51 pages, Madison, March 1975, single copy - free* (5)
-Consists of two parts: Part I provides general information on the use of the bicycle and information on past, present, and future activity on bike route and facility development. Part II presents guidelines with the primary focus on physical design to promote safety and utility of bike routes.

12. "New Switches on Old Abandoned Railroads", Bicycle Manufacturers Association, 1101 15th St., N.W., Washington, D.C., 20005, 6 pages, free*
-Explanations on how abandoned railroad right-of-ways can be used for biking and hiking trails. Discusses problems of obtaining title to the property, funding, maintenance, and repeated use of bikeway facilities.

13. "From Rails to Trails", Citizens Advisory Committee on Environmental Quality, Washington, D.C., 1975, $1.50* (11)(1)
-Report to President Ford urging the conversion of thousands of miles of abandoned railroad tracks into hiking, biking, and skiing trails.

14. "Bicycles and Pedestrian Facilities In the Federal Highway Program", U.S. Dept. of Transportation, Federal Highway Administration. 1974, 18 pages, free
-Discusses federal grant programs* (1).

15. "Bikeways, State of the Art, 1974", 97 pages, Springfield, VA, 1974, (Available from: National Technical Informational Service, Springfield, VA, 22151)*
-Excellent update on the latest design standards and construction practices for bikeways in the U.S.; solid information for bikeway developers.

16. Clawson, Marion, Land and Water For Recreation: Opportunities, Problems, and Policies, Rand McNally and Co., Chicago, 1963, 144 pages* (1)
-Presents the major facts and issues about outdoor recreation. Discussion of outdoor recreation within the national framework in economic, cultural, and political context. A good introductory book for the interested non-specialist who is seeking information on subject of outdoor recreation.

17. Bernstein, Daniel A., and Leighton L. Leighty, "Upper Great Lakes Regional Recreational Planning Study: Part Four - Land Use Controls", UW-Extension, Madison, Cooperative Extension Program, 1974, 105 pages (Available from: The authors, c/o Dept. of Resource Development, Michigan State University, East Lansing, Michigan, 48823)*
-Part of a study dealing with issue of recreational development in the Upper Great Lakes (UGL) region. This report surveys a wide range of legal tools available for controlling land use in the UGL region, plus some controls in similar situations elsewhere.

18. "Preserving Urban Open Space", Urban Renewal Administration, Housing and Home Finance Agency, Washington, D.C., Feb. 1963, 36 pages* (11)
-Presents need for preserving open space. Delineates the various kinds of open space, the means for its preservation and Federal assistance which can be available for preserving it. Although written in 1963, it provides reader a useful

overall view of possibilities available in preserving open space.

18. "Land: Recreation and Leisure", Special Report, The Urban Land Institute, Washington, D.C., 1970, 95 pages (Available from: Urban Land Institute, 1200 18th Street, N.W., Washington, D.C., 20036 $5.00)*
-Based from land use symposium, this report is devoted to an analysis of the new and rapidly expanding recreation industry in relation to land development. Discusses recreation facility and second-home development from a real estate developer's perspective.

19. Hayman, Donald G., "Open Space Planning and Property Taxation--Some Suggestions", Wisconsin Law Review, Vol. 1964, No. 4, July 1964, pp. 628-659* (1)
-Analyzes various property taxation methods that can be modified to encourage, rather than discourage the preservation of land in its undeveloped state. The author explains the inticacies of these various open land taxation schemes.

20. Krashowiecki, Jan, and Ann Louise Strong, "Compensable Regulations for Open Space: A Means of Controlling Urban Growth", Journal of the American Institute of Planners, Vol. 29, No. 2, May 1963, pp. 87-101.*
-Presents a novel technique for controlling the location and timing of urban development through the preservation of temporary and permanent open space. It is maintained that existing techniques are unsatisfactory: zoning and related controls because they involve no compensation, the acquisition of development rights, because it freezes planning decisions and inflates costs. Under proposal, controls on development are imposed by regulations similar to zoning but with a governmental guarantee that the owner will receive, when he sells his property in the open market, a price equal to the value of his property just before the controls were imposed.

21. Clawson, Marion, "A Positive Approach to Open Space Preservation", Journal of American Institute of Planners, Vol. XXVIII, No. 2, May 1962, pages 124-129*
-Discusses need for new approach toward open space; suggests that a careful definition of kinds of open space is needed, more determination of area is needed, much greater use of the areas should be established, and the development of public interest groups directly concerned with maintaining areas once they should be established.

22. Impacts of Recreation in the Coastal Zones
-"Large Recreational Home Developments in Wisconsin's Coastal Zone", Coastal Zone Management Program, Madison, May 1976, 95 pages* (12)
-Report deals with large second home developments in Wisconsin's Coastal Zone. Study focuses on relatively large scale recreational home complexes which offer many amenities such as marinas, golf ranges, etc. States that an adversary relationship between public regulatory agencies and private developers is found to be a problem in the case of Wisconsin's coastal recreational home developments. Proposes that new techniques and policies are needed to encourage developers to work with regulatory agencies from the start of a project in order to avoid unnecessary losses for the developers and adverse impacts for the public and the environment.

23. Strang, William A., "Recreation and the Local Economy - An Input-Output Model of a Recreation-Oriented Economy", Sea Grant College Technical Report, Wis-SG-71-204, U.W.-Madison, June 1973** (Available: Sea Grant College Program, U.W.-Madison, 1815 University Avenue, Madison, Wisconsin, 53706)
-Report presents the findings of the first stage of a three-stage project to relate water quality to the economic health of an area oriented toward outdoor recreation. Using Door County as a case study area, the report identifies the economic interactions in the area and traces the total impact of tourism on the economy. Report uses the mathematics of input-output analysis in its case study.

Audio-Visuals

1. Film - "Bayfield - Face of a Community", BAVI #1776, 1969, 20 min., rental $3.00* (4)
-Presents case study of the problems facing Bayfield, Wisconsin which must cope with the growing influx of tourists to Northern Wisconsin. Especially relevant due to creation of Apostle Islands National Lakeshore. Gives suggestions for solving the problems using design, planning, and community involvement principles.

2. Film - "Wisconsin's Recreational Resources: A Study in Economic Geography", BAVI #4852, 1962, $6.00* (4)
-Illustrates the factors needed to make an area valuable for recreational purposes and shows how and where these are found in Wisconsin. Describes the types of recreation facilities and resources found in Wisconsin and demonstrates the value of this resource to the economy of the state.

3. Film - "A Place to Hunt", DNR, 24 min.,* (5)
-Shows the necessity for public hunting and fishing grounds. The how, why, and where they are established and presented in an interesting manner.

4. Film - "Parks and People", DNR, 14 min.,* (5)
   -Depicts the wide variety of recreational activities that are available in Wisconsin's parks and forests, and touches on some of the problems which result from the heavy demands placed on these areas by the people that use them.

5. Film - "For You Naturally", DNR, 26 min.,* (5)
   -Illustrates why a state park is set aside and suggests some activities to do while visiting one of Wisconsin's parks.

L. Housing

Publications

1. Barrows, Richard et al, "More Houses, Fewer Farms: Land Use, Property Taxes, and Residential Development in the Town of Rice Lake", UW-Extension, Cooperative Extension Program, Madison, Oct. 1975, 27 pages* (2)
   -Case study of a rural community, looking at the way that the use of the land in and around the town has changed within the last 15 years, and discussing the question of where new development should occur.

2. Kaeser, Susan C., "Revitalizing Urban Neighborhoods: Some Wisconsin Experiences ", Wisconsin SPO, Dept. of Administration, Madison, Nov. 1975, 16 pages* (12)
   - Study of various efforts in several Wisconsin communities (Green Bay, Madison, Milwaukee, Racine) to revitalize their urban neighborhoods.

3. Housing in Wisconsin - A State Response, Report of Assembly Municipalities Sub-Committee on Housing, Madison, December, 1972* (16)

4. Roberts, John C., The Mobile Home Park in Wisconsin: Public Policy, Planners' Theories and Residents' Attitudes, unpublished thesis, 1975, [available on loan from UW-Memorial Library, Madison, Wisconsin, 53706]

5. Slitor, Richard E., "The Federal Income Tax in Relation to Housing", The National Commission on Urban Problems, Research Report #5, U.S. Government Printing Office, Washington D. C. , 1968, 162 pages* (11)
   -Analysis of the influence of federal income taxes on the production of new housing and on the upkeep of existing housing. Concludes that federal taxes are far from neutral in their effect on housing investment.

   "Special Report: Regional Councils and Housing", National Service to Regional Councils, Dept. of Housing and Urban Development, Washington, D.C., Sept. 1971, 13 pages* (11)
   -Presents the case for regional housing programs, their implementation, and citizen involvement in this type of program.

6. Godschalk, David R., "Reforming New Community Planning", Journal of American Institute of Planners, Vol. XXXIX, No. 5, Sept. 1973, pages 306-315**
   -Suggests new community developments should expand the concept of public-private development partnerships to include open planning and full-scale citizen participation.

7. Goldfield, David R., "Historic Planning and Redevelopment in Minneapolis", Journal of American Institute of Planners,

Vol. XLII, No. 1, Jan. 1976, pages 76-86*
-Discusses planning efforts in Minneapolis which are attempting to re-develop and revitalize the downtown area and deteriorated neighborhoods.

8. Cochran, Clay, "The Single Family Slum", *Planning*, Vol. 39, No. 7, 1973, pages 10-12*
   -Argues that rural housing is the nation's worst and relates why there is a bias against housing the rural poor.

9. *Mobile Homes: The Low Cost Housing Hoax*, Center for Auto Safety, Viking Press, 1975* (16)

10. McCormick, John R., *Shawano County Housing Study*, Shawano, 1971. 24 pages* (1)
    -Housing study of Shawano County which sought to determine the housing needs and problems of the county. These needs were identified by a verbal sampling survey of real estate brokers, industry leaders, local citizens, and existing planning programs. From this sampling, basic housing goals for the county were determined.

Audio-Visuals

1. Film - "Something Old...Something New", BAVI #8342, 1974, 20 min., $4.00* (4)
   -Looks at "New Town" developments. Illustrates a variety of planning for the needs of the people to inhabit the town rather than drafting the town on a drawing board.

M. Transportation

Publications (see additional citations on "Transportation" under section entitled "Land Use Adjacient Highways & Protection of Scenic Beauty)

1. "A Guide for Interchange Area Planning in Wisconsin" DOT and UW - Extension, Madison, May 1974, 38 pages* (1)
   - outlines the problems that accompany uncontrolled growth in highway interchange areas, and recommends sources of assistance and methods of planning available to local agencies in guiding sound land developments.

2. "Conference on Review and Evaluation of Alternative Regional Land Use and Transportation Plans for the Year 2000", Proceedings 9th Regional Planning Commission, April 14, 1976, 190 pages (available from. SEWRPC, P.O. Bos 769, Old Courthouse, 916 N. East Avenue, Waukesha, WI, 53186)*
   -Conference which presented for public review and reaction two alternative land use plans and six accompanying alternative transportation plans. These revisions of initial 1990 plans were undertaken in response to significant changes that have occurred in recent years in the region and elsewhere that significantly affect land use and transportation development systems. There is interesting debate between SEWRPC personnel and various members of public over the revised plans, reflecting various local concerns and response to "regional planning".

3. "Highway Planning Considerations for the Upper Great Lakes Economic Development Region", prepared jointly by the Highway Depts. of Minnesota, Michigan, and Wisconsin, April, 1967, 72 pages* (16)
   -Presents proposed highway plan for Upper Great Lakes Economic Development Region. Objective of report was to show that completion of an integrated system of highways should be considered in any economic development programs undertaken in the region.

4. "Economic and Social Effects of Highways", Summary and Analysis, Federal Highway Administration, Washington, D.C., 1972, 104 pages(available from: U.S. Dept. of Transporation, Federal Highway Administration, Washington, D.C. 20591)**
   -Provides information from over 200 studies of the economic social effects of highways. Highlights such matters of concern as land development patterns at interchanges, effects of highways in aiding an undeveloped area, and residential experiences with highways.

5. "Multiple Use of Lands Within Highway Rights-of-Way" , National Cooperative Highway Research Program Report #53, Washington, D.C., 1968, 68 pages (available from: Highway Research Board, National Academy of Sciences; 2101 Constitution Avenue, Washington, D.C., 20418, $3.25)**
   -Presents a summary of the existing multiple uses being made of highway right-of-ways. Several types of right-of-way uses are described in detail and potential new uses are also discussed.

6. "A Review of Transportation Aspects of Land Use Control", Nat'l Cooperative Highway Research Program Report #31, Washington, D.C., 1967, 41 pages (Available from: Highway Research Board, Nat'l Academy of Sciences, 2101 Constitution Ave., Washington, D.C., 20418, $2.00)**
   -Reviews various aspects and types of land use controls that have been used in conjunction with the construction and operation of the nation's highway system.

7. *Highway II and the Plan*, Wisc. Dept. of Transportation, Division of Planning, in cooperation with the U.S. Dept. of Transportation, Federal Highway Administration, Madison, 1968, 138+ pages** (16)
   -Presents State Highway Planning Program which is part of a broad, comprehensive, multi-agency planning program to identify and develop effective plans and programs to cope with the future social, economic, recreational, institutional, and transportation needs of the entire state. Although somewhat technical, it provides an understanding on how highway planning is coordinated with land use and development.

8. "The Long Range Needs of Aviation: Report of the Aviation Advisory Commission", Washington, D.C., Jan. 1973, 104 pages, $2.00** (11)
   -Presents recommendations concerning the long-range needs of aviation, including such things as future airport requirements, surrounding land uses, facility planning in conjunction with other modes of transportation.

Audio-Visuals

1. Film - "Land Use at Interchanges", BAVI #8375, 1972, 22 min., rental $2.50* (4)
   -Shows why advance planning and strict controls are important for effective highway interchange developments. Points out the value of good interchanges to both industry and the traveller.

2. Film - "Wisconsin's Interstate Highways", BAVI #6063, 1966, 15 min., rental $5.00 (4)
   -Describes the various phases of the development of a public works project. Shows interplay between federal, state, county, and city governments in the process. Film is somewhat dated in that it ignores environmental problems associated with highway construction. Update dealing with National Environmental Policy Act (NEPA) and Environmental Impact Statements (EIS) should be done.

N. Forest Land Planning

Publications

1. Barrows, Richard, and Richard Stauber, "Planning for Our County Forests", UW-Extension, Madison, Nov. 1975, Publication #G-2748, 24 pages* (2)
   -Examines impact of the County Forest program and develops a methodology for making land use decisions on County Forest Lands - case study with examples from Iron and Marinette Counties. Note: presents 6 pages of good questions that need to be asked when considering land use changes for County Forest Lands.

2. Barrows, Richard, et al, "Wisconsin Natural Resource Policy Issues: An Economic Perspective" Working Paper #6, Center for Resource Policy Studies, UW - Madison, July 1973, 321 pages, (available: Center for Resource Policy Studies, School of Natural Resources, UW - Madison, Madison, Wisconsin, 53706)
   -single copy Free; multiple copies $1.00 each
   -Economic analysis of Wisconsin's mining, agriculture, and forestry. Presents public policy recommendations which will stimulate economic activity in these areas which are consistant with ecolojic and environmental quality goals.

3. "Report of the Governor's Committee to Review Timber Management Policies on State-Owned Land", March, 1974, Madison, 29 pages** (16)
   -Recommendations on managing Wisconsin's Forest- State & County - in the face of ever-widening and increasingly intense set of demands for these resources.

4. "From Public Burden to Public Benefit - The Story of Marinette County's Land Program", Wisconsin Conservation Dept., Publication 22, Bulletin #483, Janurary 1949, Madison, 39 pages* (1)
   -Case study describing establishment of long-range land and forest programs in Marinette County during the 1930's and 1940's. Depicts beginnings of county land use planning in Marinette County. May want update.

5. Spencer, John S., Jr., and Harry W. Thorne, "Wisconsin's 1968 Timber Resource--A Perspective", North Central Forest Experimental Station, USDA Forest Service, Resources Bulletin #NC-15, St. Paul, Minnesota, 1972, 80 pages* (Available: USDA Forest Service, St. Paul, Minnesota, 55101)
   -An inventory of Wisconsin's commercial forest land. Presents text and statistics on forest area and timber volume, growth, mortality, ownership, stocking, and use in 1968. Shows two thirty-year projections of timber growth, removals, and inventory -- one assuming a high level of future timber removals and the other a low one.

6. "The Outlook for Timber in the United States", Forest Service USDA, Forest Resource Report #20, October 1973,

365 pages, (available from: Sup't of Documents, U.S. Printing Office, Washington, D.C., 20402, $3.65)**
-Report on the nation's timber supply and demand situation and outlook. Although limited primarily to timber, the report discusses these lands as they provide recreation, water, wildlife, and other similar products to the American people.

7. Stoddard, Charles H., "The Small Private Forest in the United States, Resources for the Future, Inc. (REF), Washington, D.C., 1961, 170 pages (available from: REF, 1775 Massachusetts Ave., N.W.,Washington, D.C., $2.00)
-Detailed study of the small forest ownership pattern, the problems associated with it, and the programs designed to improve timber production.

8. Sutherland, Charles F., Jr., and Carl H. Tubbs, "Influence of Ownership on Forestry in Small Woodlands in Central Wisconsin", Lake States Forest Experiment Station, Forest Service, USDA, Station Paper #77, Nov. 1959. (16)
-Presents results of over 180 interviews with small private forest land owners in Central Wisconsin. Among the findings were that majority of owners were farmers; few owners applied forest practices to their properties; although many owners knew about various forestry assistance programs, there was considerable confusion about the details of the program; with sufficient education, promotion of forestry practices could succeed.

9. Thurow, Charles, William Toner, and Duncan Erley, Performance Controls for Sensitive Areas: A Practical Guide for Local Administrators, Washington Environmental Research Center, U.S. EPA. Doc. #PB 245 177, Washington D.C., March 1975, 290+ pages, (Available from: National Technical Information Service, U.S. Dept. of Commerce, Springfield, Virginia, 22151, $13.00)**
-Report is written to be used as a handbook by local planning officials in planning for and regulating the use of 5 distinct natural areas: (1) streams and creeks, (2) wetlands, (3) woodlands, (4) hillsides, (5) groundwater and aquifer recharge areas. Each section is devoted to the discussion of local regulation of land use in areas identified as "sensitive," and each area is discussed in terms of its ecology and value to the public, current regulatory practices, and recommended programs for regulating the area.

10. Kesling, Robert V., "Handbook for Forest Owners of Barron County", 1976. A sketch of the forest resources and their importance to Barron County* (1)

Audio-Visuals

1. Film - "Forests are for People", BAVI #9329, 1973, 28 min., rental $5.50* (4)
   -Answers many questions people have about how the commercial interests are using our forests.

2. Film - "The Wisconsin Forest", BAVI, 1976. 28 min., rental $4.00* (4)

O. On Site Liquid Waste Disposal

Publications

1. Barrows, Richard L., et al, "Private Wastewater Treatment Regulations: Existing Conditions, Incentives, and Some Policy Suggestions" Small Scale Waste Management Project, UW-Extension, Publication List #11.5, Madison, 1974, 40 pages* (10)
-Discusses the current regulations governing the installation and use of septic tank systems in Wisconsin. Points out a number of reasons why regulations as they now stand give people incentives to act in ways not in the public interest, presents possible solutions, and gives the advantages and disadvantages of such solutions.

2. Amato, Peter W., and Harrison D. Goehring, "Small Scale Waste Management Systems: Land Use and Policy Implications in a Three County Wisconsin Area", Small Scale Waste Management Project, UW-Extension, Publication List 12.1, Madison, April 1974, 100+ pages* (10)
-Presents preliminary findings on the possible impact of innovative waste treatment systems over large areas of the State. Shows that planning agencies should make long-range planning efforts to identify those areas which would be susceptible to urban development with these systems, and presents various ways in which pertient data on land use and natural characteristics can be obtained and utilized to aid in specifying these "impact areas".

3. Strauss, E.J., "Selected Institutional Consideration of the Small Scale Waste Management Project", Small Scale Waste Management Project, UW-Extension, Pub. List #11.2, Madison, 1974, 195 pages (in press)** (10)
-Discusses the institutional considerations and land use implications of the technologies developed in the Small Scale Waste Management Project.

4. Stewart, David E., "The Regulation of On-Site Home Sewerage in Wisconsin: A Study as It Exists Today, An Analysis of Its Effectiveness and Proposed Changes", Small Scale Waste Management Project, UW-Extension, Pub. List #11.3, Madison, 1974, 200 pages (in press)** (10)
-Brief description of usage, problems, and phases in the life of an on-site sewerage system. Presents in-depth analysis of the regulation of these systems in Wisconsin, and offers a general changes to improve the regulation of these systems .

5. Otis, R. J., "Building a Home in the Country? What You Should Know About Your Septic Tank System", Small Scale Waste Management Project, UW-Extension, Circular #G1071, Madison, March 1974, 10 pages* (2) (10)
-Briefly describes the operations of a septic tank system, and the requirements that are needed for its installation.

6. "On-Site Disposal of Small Wastewater Flows", Small Scale Waste Management Project, UW-Extension, Madison, Jan. 1976, 85 pages * (10)
-Presents discussion of on-site disposal of wastewater. Explains how the septic tank system operates, its causes of failure, and alternative disposal systems that are presently being developed. Also, describes how on-site wastewater disposal systems are being managed, discusses state regulations, suggests improvements for these regulatory programs, and briefly discusses land use implications of improved on-site disposal technology.

7. Converse, James C., and Richard J. Otis, "The Mound or Fill System for On-Site Wastewater Disposal for Rural Homes in Wisconsin", Small Scale Waste Management Project UW-Extension, Madison, March 1976, 7 pages* (10)
-Explains alternative wastewater disposal system that has been developed which will overcome some of the site limitations of the conventional septic tank systems.

8. Stewart, David E., "Legal, Planning, and Economic Considerations of On-Site Sewerage Systems", Small Scale Waste Management Project, UW-Extension, Pub. List #11.4, Madison, Dec. 1974, 8 pages* (10)
-Discusses the history, usage, problems, and phases in the life of an on-site sewerage system, and offers general changes to improve the regulation of both septic and innovative systems.

9. "On-Site Waste Water Disposal for Homes in Unsewered Areas: Small Scale Waste Management Project, UW-Extension, Sept. 1973, 16 pages* (10)
-Illustrates the scope and problem of providing for treatment of domestic liquid wastes in unsewered areas. Shows the need for safe, economic, and reliable alternative treatment and disposal systems. Describes the general nature of the research and demonstration efforts currently underway in this area.

10. Otis, R.J., D.E. Stewart, and L. Forde, "Alternative Wastewater Facilities for Rural Communities, A Case Study of Westboro, Wisconsin", May 1975, (in press)* (10)
-Presents a case study of the planning and research in developing a wastewater disposal system for a small rural community.

11. "Country Living with Proper Waste Disposal," U.S.D.A., Soil Conservation Service, and Soil Conservation Society of America, Wisconsin Chapter. 1976*
-Fact sheet on country living.

Audio-Visuals

1. Film - "Installing a Septic Tank-Soil Absorption System", BAVI #1779, 1969, 22 min., rental $3.00* (4)
   -Specific, technical instruction on performing soil percolation tests and installing septic tanks and soil absorption systems. Shows correct installation of several systems from initial excavation to final inspection.

2. Film - "Living Filter", BAVI #7697, 1970, 11 min., rental $3.00* (4)
   -Describes an innovative effluent disposal system tested in Pennsylvania. Shows how the natural process of water filtration is put to use by man. Treated water from sewage plants was sprayed over farm and forest tracts over a three year test period. Film discusses successes.

P. Land Use Adjacent to Shorelines

Publications

1. Deknatel, Charles, "Impact of Recreational Development: The Voyager Village Experience", Wisconsin Dept. of Admin., SPO, Madison, Feb. 1975, 13 pages* (12)
   -Case study on the controversy surrounding plans for the construction of a second-home recreational development project in Burnett County. Presents the arguments both for and against the project. A good look at the complexities and land use dilemmas facing many northern communities today facing shoreland development.

The following publications are Inland Lake and Lake Demonstration Project Reports.
Copies are available from:
Environmental Resource Unit
Lake Management Program, 1815 University Avenue
Madison, Wisconsin, 53706

2. Brierton, David, "Study of Attitudes and Preferences of Visitors to the Hayward, Wisconsin Area During the Labor Day Weekend of 1969", 1970, 68 pages
3. Pierce, Ned D., 'Inland Lake Dredging Evaluation (Wisc. Dept. of Natural Resources Tech. Bull. 46), 1970, 66 pages
4. Kusler, Jon A., "Artifical Lakes and Land Subdivisions", 1971, 78 pages
5. _______________, "Regulations for Disposal of Domestic Liquid Waste in Wisconsin: A Review", 1971, 94 pages
6. Born, Stephen, et al,"Inland Lake Demonstration Project - Progress Report (1968-1972), 1972, 16 pages
7. Yanggen, Douglas A., and Zigurds L. Zile, "Legal Problems of Property Owners' Associations for Large Water Oriented Recreational Housing Complexes", 1972, 249 pages
8. ____, "Legal Problems of Property Owners' Associations for Large Water Oriented Recreational Housing Complexes", 1972, 46 pages
9. Le Jeune, Harold, "Economic Impacts of Artificial Lake Development: Lakes Sherwood and Camelot - A Case History, 1972, 50 pages
10. Kusler, Jon A., "Survey: Lake Protection and Rehabilitation Legislation in the United States", 1972, 75 pages
11. Born, Stephen, and Douglas A. Yanggen, "Understanding Lakes and Lake Problems (University of Wisconsin Extension Pub. No. G2411), 1972, 40 pages

12. Klessig, Lowell L., and Douglas A. Yanggen, "Wisconsin Lakeshore Property Owners' Associations, Identification, Description and Perception of Lake Problems, 1972, 72 pages

13. Smith, S.A., et al, "Lake Deepening by Sediment Consolidation - Jyme Lake", 1972, 36 pages

14. Ketelle, Martha, "Physical Considerations for the Location of Septic Disposal Systems", 1972, 20 pages

15. Kusler, Jon A., and Robert Owen, "Lake Property Sanitary Surveys", 1972, 32 pages

16. Christianson, Roger D., "Buyer Attitudes and Characteristics for Lake Lot Developments in Six Wisconsin Counties", 1972, 58 pages

17. Kusler, Jon A., "Carrying Capacity Controls for Recreation Water Uses", 1972, 71 pages

18. Born, Stephen, et al, "Chippewa Flowage Investigations", 1972, approx. 1,000 pages

19. Klessig, Lowell L., "Lake Property Owners In Northern Wisconsin", 1973, 146 pages

20. Peterson, James O., et al, "Eutrophication Control: Nutrient Inactivation by Chemical Precipitation at Horseshoe Lake, Wisconsin", 1973, 19 pages

21. __________________________, "Nutrient Inactivation as a Lake Management Technique: A Summary Report", 1973

22. __________________________, "Urban Runoff and Its Relationship to Lake Management", 1973

23. Born, Stephen, et al, "A State/Local Lake Rehabilitation Program: A Proposed Bill and Commentary", 1973, 92 pages

24. ____________________, "Dilutional Pumping at Snake Lake, Wisconsin--A Potential Technique for Small Eutrophic Lakes (Wisc. DNR Tech. Bull. 66), 1973

25. ____________________, "Restoring the Recreational Potential of Small Impoundments: The Marion Millpond Experience (Wisc. DNR Tech. Bull. 66), 1973

26. ____________________, "Final Report of the Inland Lake Demonstration Project", 1973

27. "A Guide to Wisconsin's Lake Management Law", July 1976, -Explanation of Chapter 33, Wisconsin's Lake Management Law. Includes new provisions and ammendments to law which were passes in past (1976) legislative session.

28. Nichols, Stanley, "Aquatic Plant Management Using Mechanical Means (Wisc. DNR Tech. Bull.)

29. Stephenson, David A., and Stephen M. Born, and Stephen A. Smith, "Hydrogeology of Lakes, with Planning and Management Implications", 1973

30. Dunst, Russell, et al, "Worldwide Survey of Lake Rehabilitation Experiences and Technology Assessment", 1973

31. Wirth, Thomas L., "Aeration as a Lake Management Technique: A Summary Report", 1973

32. Yanggen, Douglas A., "Special Purpose Units of Government for Lake Management with Emphasis on Sanitary Districts", 1973

33. Dudley, John, and David Stephenson, "Nutrient Enrichment of Ground Water from Septic Tank Disposal Sustems", 1973, 50 pages

34. Klessig, Lowell L., and Douglas A. Yanggen, "Lake Property Owners and Their Role in Lake Management", 1973

35. Ryner, Peter C., "Sewers and Shoreland Development", Michigan Sea Grant Program, University of Michigan, Ann Arbor, Michigan, Jan. 1975, 10 pages (Available from: Univ. of Michigan Sea Grant Advisory Services, 2200 Bonistell Bldg., Ann Arbor, Michigan, 48105, free)* -Describes how sewer line location and capacity can influence the patterns of shoreland development. Points out that if a community desires to retain the traditional shoreland usage pattern, or wishes to avoid undesirable usage patterns as change occurs, then some form of comprehensive planning may be necessary, as part of the sewage planning process.

Audio - Visuals

1. Film - "Inland Lake Demonstration Project", BAVI #7773, 27 minutes, 1971, rental $3.00* (4)
- Reports on ways in which inland lakes and their shorelands can be protected. The first part of the film discusses techniques which attempt to restore lakes. The second part of the film shows systematic lake-use and land use development planning. Also suggests methods of protecting the area after development.

2. Film - "Shoreland Development - A New Approach", BAVI #9077, 1973, 18 min., rental $4.00* (4)
-Suggests ways of designing lake shore developments which preserve water quality and the beauty of shoreline areas. Describes benefits of orderly planning for the economic as well as the environments of large developments.

3. Film - "The River That Came Back", BAVI #8053, 1969, 10 min., rental $5.50* (4)

-Outlines history behind a river that once was lost to pollution and came back. States that land use controls, sewage treatment plants, and limitations on recreational uses are needed to preserve its quality.

4. Film - "What's Happening to Our Lakeshores?" BAVI #6536 1965, 10min., rental $3.00* (4)
   - Gives overview of lakeshore problems and planning ideas. Presents ways of land use planning and public control to insure that beauty will be preserved, fishing and recreational aspects improved, and sanitation assured. Suggests orderly land development.

5. Film - "What Can We Do About Floods?" BAVI #0488, 1961, 20 min., $3.00* (4)
   -Dramatically documents Wisconsin's recurring flood problems in cities and countryside. Presents case for flood plain zoning. Presents Merrill, Wisconsin as case of good flood control practices, where the flood plain area in the center of town is devoted to parks, recreational areas and ball diamonds - not particularly damaged by annual floods.

6. Film - "Wild River Country", BAVI #7128, 1967, 24 min., $3.00* (4)
   -A spectacular film showing many of Wisconsin's wild, free-flowing rivers. Illustrates why Wisconsin is dedicated to the preservation of nature. Stimulates the viewer to support necessary conservation practices in order to keep our rivers and streams wild and clean, and thus free from development.

7. Film - "Project ZAP", BAVI # 1976, 20 min., * (4)
   -Presents community organization efforts to clean up a 51-mile stretch of the Blackstone River, located in Rhode Island. A strong motivational film, showing how rivers and the land adjacent to the water can be cleaned up through local community involvement.

8. Film - "Lake Renewal Techniques", BAVI #9346, 1974, 23 min., $4.75* (4)
   -Presents various techniques that are being developed to restore "problem" lakes. Gives an understanding of lake problems and how one goes about restoring and protecting lakes. Points out that proper land use throughout the watershed is crucial to lake protection.

9. Slide Set - "Understanding Lakes and Lake Problems", 15 min. Taped Narrative* (Available from: UW Environmental Resources Unit, 1815 University Avenue, Madison, Wisconsin, 53706)
   -Slide/Tape preparatation illustrating various lake problems found in Wisconsin, which are often caused by poor land use.

Q. Settlement Patterns and Public Services

Publications

1. Clark, Robert C., and Marie S. McCabe, editors, "Environmental Dimensions of Development", Summary of Seminar Proceeding, (State-wide Title I Consortium Seminar), River Falls, Wisconsin, October 7-8, 1971, 42 pages* (1)
   -Series of seminar papers dealing with 5 dimensions of our resources, namely: water, housing, manpower, recreation, and the community. Purpose was to identify areas of need and kinds of resources required of institutions of higher education in helping their respective communities make fuller use of their environmental resources.

2. _______________, Laverne B. Forest, and Earl B. Timothy, "Bayfield Citizens' Attitudes Toward Selected Community Improvement Recommendations", UW-Extension, Dept. of Landscape Architecture, Departmental Bull. #3, Madison, Feb. 1972, 47 pages* (1)
   -Defines and analyzes the attitudes of organization leaders and a random sample of Bayfield, Wisconsin toward selected recommendations for perserving and enhancing the natural beauty of the town. Presents an evaluation of the degree of understanding and approval of the recommendations, as well as the analysis of the demographic, social, economic, and political elements affecting their attitudes.

3. "Citizens'Concern for Bayfield, Wisconsin", Seminar Proceedings #4, Title I Consortium Project, Higher Education Act of 1969, Sept. 25-27, 1969, Bayfield, Wisconsin, 37 pages* (1)
   -Presentation of citizens' of Bayfield concerns for preserving the city's natural beauty and uniqueness. Provides a summary on what various speakers said could and is being done by various committees and officials of Bayfield with assistance from other individuals and agencies in preservation efforts.

4. Ball, Bruce P., "Urbanization in St. Croix and Pierce Counties", Metropolitan Region Studies, UW-River Falls, 1975, 23 pages* (1)
   -Report discusses and analyzes the trends and implications of population growth, economic growth, and land use for this two-county area. Due to influx of people from the Twin Cities area, the report illustrates that urbanization of these counties is taking a toll on agriculture as well as scenic acreage. Points out development decisions bear heavily on the issue of land use.

5. Lambert, Virginia, David McGranahan, Oscar B. Martinson, and E.A. Wilkening, "Public Services, Programs, and Policy in Four Northwestern Wisconsin Counties". IES, UW-Madison, IES Report #41, December 1974, 48 pages*

-Study into the 19-county area of Northwest Wisconsin. Purpose of the study was to develop measures of personal well-being and the quality of life to evaluate the imputs of both planned and unplanned changes in this 19-county area.

6. Lehmann, Richard, "Measures to Preserve Agricultural and Undeveloped Lands by Restricting Their Development and Promoting Improved Patterns of Urban Growth", Prepared for Legislative Council Special Committee on Preserving of Agricultural and Conservancy Lands**, Staff Paper, Madison, August 22, 1974 (Available: Wisconsin Legislative Council, State Capitol Building, Madison, Wisconsin, 53702)*
   -Investigates various methods of restrictive regulations of lands that are aimed for preserving undeveloped lands, and improving urban growth patterns.

7. Lambert, Virginia, "Performances for Expansion of Public Services in Five West-Central Wisconsin Counties", Staff Paper Series in Rural and Community Development, Report #8, Department of Rural Sociology, UW-Madison, February 1976, 10 pages* (Available: Department of Rural Sociology, UW-Madison, Madison, Wisconsin, 53706)
   -Survey of five west-central Wisconsin counties (Clark, Dunn, St. Croix, Eau Claire, Polk). Sample residents were questioned about the support for public services, as part of a "Quality of Life" study.

8. "Growth Centers of Wisconsin: Their Identification and Characteristics", Proceedings of Annual Conference sponsored by Association of Wisconsin Planners, American Institute of Planners, Title I Interagency Consortium, May 11, 1973, Eau Claire, 80 pages* (1)
   -"Growth Centers" are clusters of human activity which are growing faster than the average for the nation, state, or other larger region. This publication presents a series of conference papers discussing such growth centers and their implications within Wisconsin.

Audio-Visuals

1. Slide-Tape Set, "Land Use....When You Live Next Door to 2,000,000 People", 1974* (1)
   -Presents problems of land use and need for land use planning in St. Croix County. Land use in the county is heavily influenced by the Twin Cities urban area. Discusses problems of urban sprawl, rural/urban conflicts, etc.

Public Service Insert

1. Public Service Costs and Development", Wisconsin DOA, State Planning Office, Madison, Sept. 1975, 84 pages* (12)
-Examines the impact of alternative physical development patterns on the cost of public services. Community level and regionwide costs are examined, along with the short term costs for development of facilities and the long term costs of living with a particular physical development pattern. The report raises serious questions about the long term viability and affordability of current development trends.

2. Reiche, Carl, "Public Service Extensions and Community Growth: The Finger Road Sewer", Wisconsin Dept. of Administration, State Planning Office, Madison, Wisconsin, August 1976, 20 pages* (12)
-Case study analyzing the long-run development implications of sewer extensions. Using Green Bay situation as an example, the study illustrates that major public capital investments, such as sewer extensions, are a key part of the overall community growth process. It suggests that these investments must be carefully weighted in the light of land developments likely to be stimulated by the provision of such services.

3. Muller, Thomas, and Phillip S. Schaenman, "Measuring Impacts of Land Development: An Initial Approach", 1974, The Urban Institute, Washington, D.C., 1974, 90 pages, $2.95, * (Available: Publications Office, The Urban Institute; 2100 M. ST. N.W; Washington, D.C., 20037)
-Suggests a wide range of social, economic, and environmental concerns which should routinely be assessed in the course of deciding among alternative land uses. Also describes various procedures for actually making impact measurements which might be used by local governments to achieve a better understanding of land use consequences both before and after a developer's plans are given the go ahead.

4. Muller, Thomas, "Fiscal Impacts of Land Development - A Critique of Methods and Review of Issues - 1975", The Urban Institute, Washington, D.C., 1975, 60 pages, $2.95* (Available: Publications Office; Urban Institute, 2100 M. St. N.W; Washington, D.C., 20037)
-Analyzes the state of the art of calculating the fiscal impact of land development. A large number of fiscal studies are examined to determine why findings differ, to identify the major analytical issues, and to synthesize a judgement about the utility of fiscal impact analysis as a tool for better land use planning and management.

5. Real Estate Research Corporation, "The Costs of Sprawl: Literature Review and Bibliography", U.S. Government Printing Office, Washington, D.C., 1974,* (11)
-A comprehensive bibliography on residential and commercial costs of development. Separate sections on major public services and environmental effects. Many references annotated.

6. *The Growth Shapers: The Land Use Impacts of Infrastructure Investments*, prepared for the Council of Environmental Quality by Urban Systems Research and Engineering, Inc., Washington, D.C., May 1976, 71 pages, $1.30* (11) (16)
-Examines the major role which many public facilities, termed "infrastructure" investments, play in the local development process. It covers such facilities as water and waste water systems, power supplies, highway and secondary road networks, mass transit, systems, and airports. Report stresses that such investments affect local growth by influencing the location and costs of new construction, and can have a powerful effect on the density, timing, and amount of new development. Provides an excellent portrayal of the link between infrastructure and land use.

7. Reilly, William K., editor, *The Use of Land: A Citizens' Policy Guide to Urban Growth, A Task Force Report Sponsored by the Rockefeller Brothers Fund*, Thomas Y. Crowell Co. New York, 1973, 304 pages* (16)
-National Task Force Report discussing such subjects as the concerns of citizens about urban development; opportunities and incentives of the private sector, of landowners and developers; ways in which local government can create an environment that frees the private sector to use its opportunities well; how states can correct the limited view and property tax preoccupations of local governments; recommends the federal government to provide national recognition of the need for institutional reform of state and local land use laws and programs and to adopt key federal programs to the new policies of lower level governments.

8. Rogers, David L., and Larry R. Whiting, editors, "Aspects of Planning for Public Services in Rural Areas", North Central Regional Center for Rural Development (NCRCRD), June 1976, 400 pages (Available from: (NCRCRD), 108 Curtiss Hall, Iowa State University, Ames, IOWA, 50011)*
-Premise of publication is that public service delivery in rural areas is fragmented, often uncoordinated, and patterned in many instances on the economies of scale associated with more densely populated areas. Reviews existing methods and procedures for planning in rural areas, examines the consequence methods for establishing priorities and implementing plans that might better reflect the special needs and problems of non-metropolitan areas.

9. Hyman, Jerry, "Wisconsin's Growth and Development: A Survey of Legislation and Agency Policies," State Planning Office, Madison, August 1976, 61 pages** (1)

R. Soil Erosion

Publications

1. Mulcahy, L.F., and U.R. Reinert, "Your Wisconsin Soil and Water Conservation District Brochure", Madison, 1975, (Available: BSWCD; 1815 University Ave., Madison, Wisc., 53706)*
-Briefly explains what a Soil and Water Conservation District is, what functions it performs, and identifies various governmental agencies that assist the SWCD's.

2. ______________________________, "There's a Soil and Water District. . .Here. . .as Well as. . .There. . .", Wisc. Assn. of Soil and Water Districts Brochure, 1975* (Available: BSWCD, 1815 University Ave., Madison, Wisc., 53706)
-Explains functions of SWCD's in an urban setting; discusses soil and water problems found with/in urban communities, their consequences, and how SWCD's can aid in solving some of these problems.

3. Daniels, T., Leon, Johnson, and William Clark, "Sediment: A Major Water Pollutant", UW-Extension, Cooperative Extension Programs, Publication #G2763, Madison, March 1976, cost 10¢* (2)
-Discusses problem of erosion and sedimentation and their effect on water quality. Presents some of research activites that are being done in Wisconsin to alleviate this problem.

4. "Proceedings - Governor's Conference on Erosion and Sediment Control", April 26-27, 1973, 148 pages (Available from: Executive Secretary, BSWCD, 1815 University Ave., Madison, Wisc., 53706)*
-Series of presentation on the various aspects of erosion and sediment control in Wisconsin and Federal context. Also presentations on local concerns and role in area of sediment control.

5. Barber, G.J., O.J. Berry, Frank Kiefer, D.T. Massey, L.F. Mulcahy, and H.F. Ryan, "A Model Ordinance for Wisconsin Soil and Water Conservation Districts Adopting Land Use Regulations for Sediment Control", Board of Soil and Water Conservation Districts and U.S. Soil Conservation Service, Madison, Feb. 1973, 8 pages (Available from: BSWCD, 1815 University Ave., Madison, Wisc., 53706)*
-Briefly describes problems of soil erosion and attempts being made to alleviate these problems. Presents a model ordinance of land use regulations for sediment control.

6. "Guidelines for Developing a Resource Conservation Program for Soil and Water Conservation Districts", prepared by Wisconsin Board of Soil and Water Conservation Districts in cooperation with UW-Extension, Wisc. Ass'n. of Conservation Districts, National Ass'n. of Conservation Districts, and U.S. Soil Conservation Service, 1974, 5 pages (Available from: BSWCD, 1815 University Ave., Madison, Wisc., 53706)*
-Presents guidelines for preparing a long-range plan or program for Soil and Water Conservation Districts. Prepared to aid the SWC Districts in their program planning, and implementation of these programs.

7. Hadley, David W., "Shoreland Erosion in Southeastern Wisconsin", UW-Extension, Geological and Natural History Survey, Madison, 1815 University Ave., Madison, WI, Feb. 1976, 33 pages* (13)
-Describes the natural processes at work along the shoreline which cause erosion, discusses possible remedial measures, and presents several alternatives (e.g. structural setback and zoning requirements) which could be used to deal with the problem of erosion.

8. "Help Yourself - Great Lakes Shoreline: Problems and Solutions", Brochure (Available from: U.S. Army Corps of Engineers, North Central District, 219 S. Dearborn St., Chicago, Illinois, 60604)*
-Explains problem of shore erosion along Great Lakes shoreline, how and why it occurs, and gives information on various alternative shore protection measures--their basic purpose, construction, and advantages and disadvantages of each.

9. Bodwitch, William P., Mel D. Powell, and William C. Winter, "Community Action Guidebook for Soil Erosion and Sediment Control", March 1970, 64 pages* (9)
-Specifically written for local officials to assist them in their efforts to control sedimentation problems. Describes various approaches to organize, plan, finance, staff, and implement comprehensive sedimentation control programs. Provides local officials and administrators and understanding of the technical problems, and provides soil and water experts and technicians an understanding of the administrative aspects of sedimentation control.

10. Thurow, Charles, William Toner, and Duncan Erley, *Performance Controls for Sensitive Areas: A Practical Guide for Local Administrators*, Washington Environmental Research Center, U.S. EPA, Washington, D.C., Doc. #PB 245 177, 290+ pages, March 1975 (Available from: National Technical Information Service, U.S. Dept. of Commerce, Springfield, Virginia, 22151, $13.00)*
-Report is written to be used as a handbook by local planning

officials in planning for and regulating the use of 5 distinct natural areas: (1) streams and creeks, (2) wetlands, (3) woodlands, (4) hillsides, (5) groundwater and aquifer recharge areas. Each section is devoted to the discussion of local regulation of land use in areas identified as "sensitive," and each area is discussed in terms of its ecology and value to the public, current regulatory practices, and recommended programs for regulating the area.

Audio - Visuals

1. Film - "Conserving Our Soil Today', BAVI #5079, 1960, 11 min., rental $3.25* (4)
   -Explains the importance of soil, discusses how soil is formed and can be damaged, and presents solutions for soil problems, methods of soil conservation, and ways of reclaiming soils.

2. Slide-tape set - "Washout", Soil Conservation Service, USDA Oct. 1969 (Available from: Office of Information, USDA, Washington, D.C., 20250, cost: $8.00)*
   -A color slide presentation discussing the problem of sediment erosion in the suburbs.

Z. Specially Created Institutional Arrangements/Mechanisms Involved in Land Use Planning

1. Regional Planning Commissions

Publications

1. Clarenbach, Fred A., "Regionalism in Wisconsin: Next Steps?" Wisconsin Dept. of Local Affairs and Development, 123 W. Washington Ave., Madison, Wisconsin, 53702. May 1976 131 pages** (1)
   Investigation into Wisconsin's substate planning system. Main focus is on RPC's, discussing its current problems and offers recommendations on how the RPC's can be strenthened and improved.

2. ___________________, Harold C. Jordahl, and Carlisle P. Runge, "Maintaining Wisconsin: State/Regional/Local Planning Arrangements for Land Development and Environmental Protection", UW-Madison, Dept. of Urban and Regional Planning, Jan. 1972, 39 pages** (1)
   -Discusses the need for strengthened state/local land use policy formulations and makes specific recommenations on how state and regional planning can be strengthened.

3. "The Concept of Region and Regionalism--Functions and Delineations", Seminar Proceedings #5, Green Bay, Title I Consortium Project, Higher Education Act of 1965, March 5-6, 1970, 68 pages** (1)
   -Series of seminar papers discussing the theories and concepts of regionalism. Emphasis was placed on increasing awareness of how regional planning can contribute to solving community and area problems.

4. "Regional Planning and Development Strategies", Seminar Proceedings #6, UW-Extension, Waukesha, Title I Consortium Project, Higher Education Act of 1965, Nov. 5-6, 1970, 72 pages** (1)
   -Series of seminar papers discussing regional planning and its use in such areas as transportation and watersheds. Also presents various problems facing regional planning and planning strategies that can be used in certain situations.

5. "Revaluating Regionalism: A Report of the Subcommittee on Regional Planning of the Assembly Committee on Municipalities", November, 1976, 45 pages, plus appendices.
   -Purposes changes in the State Regional Planning programs.

Audio-Visuals

1. Slide/Tape Set - "Regional Planning In Wisconsin", BAVI 1975* (4)

-Describes four of Wisconsin's regional planning commissions and shows some of the many problems that they help solve.

2. Slide/Tape Set - "Planning in West Central Wisconsin", (Available from: West Central Wisconsin Regional Planning Commission, Eau Claire County Courthouse, 731 Oxford Ave., Eau Claire, Wisconsin, 54701)*
-Gives brief description of the WCWRPC. Discusses what planning is, what is a RPC, and shows activities of an RPC.

2. Resource Conservation and Development Districts

Publications

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Audio Visuals

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3. Economic Development Districts

Publications

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Audio Visuals

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4. Coastal Zone Management Program

Publications

1. ETN Speech--Coastal Zone Management in Wisconsin, Stephen M. Born, November 1974* (12)
   -Lecture delivered over the Educational Telephone Network of the University of Wisconsin Extension. Covers CZM regulations and Wisconsin's grant application, Wisconsin's coastal area geography, agencies involved in the program, the unique features of the Wisconsin's program, what had happened thus far, and the value of the program to the state.

2. Coastal Gazette, WCMDP, Issued approximately every six weeks* (12)
   -All issues currently available. Consists of news clippings from around the state, authologized by relevant coastal topics.

3. Our Great Lakes, University of Wisconsin Sea Grant College Program, September 1973 (WIS-SG-73-114)* (12)
   -A brief booklet for lay audiences on Great Lakes history and current issues. Topics covered are the geological and political history of the Great Lakes drainage area; commercial shipping; the St. Lawrence Seaway; commercial and recreational fishing; boating, swimming, and other forms of recreation; pollution; erosion; the need for management of the lakes; and the institutional arrangements then currently involved in Great Lakes management.

4. The Coasts of Wisconsin, James Napoli, UW Sea Grant and WCZMDP, March 1975* (12)
   -Report written in popular language explaining the evolving need and arrangements for managing Wisconsin's Great Lakes Coasts. Details the physical characteristics, history and development, current uses and problems of Lake Superior and Lake Michigan. With illustrations.

5. Fact Sheets (On Wisconsin's Coastal Management Program) Prepared by the Citizen's Advisory Committee, August-September 1976* (12)
   -A series of one page informational fact sheets on coastal issues, problems, and Wisconsin's program to date. All list sources for more information (study reports, etc.) and contacts. A fact sheet on the following will be available shortly:
    1. Shore Erosion
    2. Lake Levels
    3. Commercial Ports
    4. Recreation - Tourism
    5. Public Access

6. Power Plant Siting
7. Coastal Management: What is it?
8. Wisconsin's Approach
9. Wisconsin's Program: Past, Present, Future
10. Coastal Reports and Demonstration Projects

6. Coastal Atlas, State Planning Office, expected Nov.-Dec., 1976* (12)
-Will consist of a summary of land use and zoning information, aerial photography, etc. For all 15 coastal counties. Will cite more detailed sources. Arrived at lawyer and local officials.

7. Annotated Bibliography of Geological, Hydrologic, Soils, and Climatological Information For Wisconsin's Great Lakes Coastal Zone Counties, James Stark, University of Wisconsin-Extension, Geological and Natural History Survey, 1975* (12)
-Collection of available source of information on subjects relevant to shore erosion considerations, arranged by subject area.

8. Proposed Shore Erosion Policy Study, DNR, Charles Hess review draft, July 1975--Fianl Study Design February 1976, individual reports expected May 1976-January 1977* (12)
-Purpose of study is to develop alternative policies for the abatement of shore damage and protection of shore property. A series of technical studies will include basic inventories and specific analytical studies on shore erosion, critical erosion areas, protective structures, and lake levels.

9. Rural Land Resource Management in Wisconsin Coastal Counties, Richard Lehmann, Paul Mueller, and Paul Can Berkel* (12)
-An extensive survey, conducted by mail and personal interviews, of county and local land use zoning administrators in the unincorporated areas of the coastal zone. Evaluates the status of local ordinances and how they are administered.

10. "Position Paper for Review--Subject Matter, Organization, and Boundaries for a Potential Wisconsin Coastal Management Program", Wisconsin Coastal Coordinating and Advisory Council, Madison, August 1976. 30 pages* (12)
-Report reflects the current view of the Council on several critical issues involved in the design of a possible coastal management program in Wisconsin.

Audio Visuals

1. Slide/Tape Set, "Wisconsin's Coast", Sea Grant & Wisconsin CZUP, March 1975* (12)
2. Slide Set/Talk, "They Came to Build our Great Lake Heritage", (For presentation contact James Purinton, Env. Resources Unit, 1815 University Ave., Madison, Wisconsin, 53706)*

5. "208" Planning

Publications

1. Daniels, Tom, Leonard Johnson, and William Clark, "Sediment: A Major Water Pollutant", UW-Extension, Cooperative Extension Program, Publication #G2763, Madison, March 1976, 10¢* (2)
   -Discusses problem of erosion and sedimentation as it relates to water quality. Presents various research activities underway in Wisconisn which are attempting to alleviate this problem.

2. "When you Think About Polluted Waters, Think About Your Rivers and Streams", U.S. Governmental Protection Agency, 1975 (Available: BSWCD, 1815 University Avenue, Madison, Wisconsin, 53706)*
   -Discusses Federal Water Pollution Control Amendments of 1972 and their goals. Attempts to control point and non-point source pollution, 208 planning, and other pollution control strategies.

3. "The Clean Water Act and the Farmer", Ag. Stabilization and Conservation Service, USDA Washington, 1975* (Available from: BSWCD, 1815 University Ave., Madison, WI 53706)
   -Explains how the Federal Water Pollution Control Act of 1972 applies to farming and ranching operations.

4. "SCS and 208 Water Pollution Control", Soil Conservation Service USDA Washington, Feb. 1976 (Available from : BSWCD, 1815 University Avenue, Madison, WI 53706)*
   -Briefly explains "208" and how the SCS provides technical assistance in their planning efforts.

5. "Methods for Identifying and Evaluating the Nature and Extent of Non-point Sources of Pollutants", Environmental Protection Agency, Washington, DC, $2.45, Oct. 1973* (11)

6. "Processes, Procedures, and Methods to Control Pollution Resulting from All Construction Activity", Environmental Protection Agency, Washington, DC, $2.30, Oct. 1973* (11)

7. "Processes, Procedures, and Methods to Control Pollution Resulting from Silvicultural Activities", Environmental Protection Agency, Washington, DC, $1.25, Oct. 1973* (11)

8. "Methods and Practices For Controlling Water Pollution From Agricultural Non-Point Sources", Environmental Protection Agency, Washington, DC, $1.10, Oct. 1973* (11)

9. "Non-Point Source Pollution Sediment Section 108 (a) Demonstration Projects Pollution Control in the Great Lakes", Environmental Protection Agency, Washington, DC, Nov. 1975 (Available: EPA, 230 S. Dearborne St., Chicago, IL 60604)*

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V. How To Implement A Land Use Plan

A. Adoption of Plans

Publications - (Note: See Appendix for case studies which deal with Extension Agents' efforts in developing and implementing land use plans.)

1. Hahn, Allen Jo, "Planning in Rural Areas", Journal of American Institute of Planners, Vol. XXXVI, No. 1, Jan. 1970, pages 44-49* (16)
   -Discusses the often-felt opposition of community leaders, and government to planning, and possible solutions to alleviate this problem.

Audio-Visuals

B. Regulatory Measures

1. Zoning Ordinances and Subdivision Regulations

Publications

1. Moyer, Harriett, "Why Zoning: The Case of People Versus Grass", UW-Extension Community Resource Development, Madison, undated, 22 pages* (1)
-Easy, understandable study which presents the reasons why zoning is used in local areas. In summary, zoning is a tool to carry out comprehensive planning and avoid conflicting or undesirable land use.

2. "Local Zoning in Wisconsin", The Wisconsin Taxpayer, Madison, August 1974* (1)
-Describes zoning process, procedures for the local zoning secondaries with/in Wisconsin.

3. Rowlands, Walter A., "How to Make Rural Zoning Ordinances More Effective", UW-Extension, Circular #546, April 1967, 21 pages* (2)
-Presents reasons why zoning is necessary as a tool for land-use within a county. Good treatment of steps involved in zoning process. May want update in 1976 context.

4. Deknatel, Charles, and Susan Harris, "Zoning to Preserve Agriculture: Columbia County", Wisconsin SPO, Dept. of Administration, Dec. 1974, 10 pages* (12)
-Case history that depicts changes in county's zoning ordinance in order to deal with competing agricultural and residential demands for land.

5. A Primer on Zoning - State of Wisconsin. Legislative Reference Bureau, Madison, Wisconsin, 1971
-A thorough coverage of zoning in Wisconsin on all levels including techniques, economic integration, fiscal effects and jurisdiction.

6. Wisconsin's Shoreline Protection Ordinance and Shoreland Administration Manual, 1976, Department of Natural Resources, Madison**
-Two works covering the model ordinance and model administration right down to the forms to be used. Both revised and comprehensive. Free.

7. Zoning Law and Practice in Wisconsin. Richard Cutler. Department of Continuing Legal Education, University of Wisconsin, Madison, Wisconsin (1967), revised 1974**
-Zoning law is covered extensively with emphasis on city and town forms. Includes cook book models and explanation. Extremely valuable reference!

8. Babcock, Richard F., The Zoning Game, University of Wisconsin Press, Madison, WI, 1969, 202 pages* (1)
   -Concise, witty analysis of zoning in America and its participants, functions, and problems. Includes recommendations for clarifying zoning enabling acts for local procedures, restating major criteria for zoning, and creating a statewide administrative agency to review the decision of local authorities.

9. Meyer, Steve, "Agricultural Zoning", Department of Agricultural Economics, Michigan State University, Michigan Farm Economics, Cooperative Extension Service #397, Feb. 1976, 4 pages* (16)
   -Presents series of questions and answers regarding the feasibility and legality of using ag zoning as a tool to preserve farm land. Concludes it is a useful tool, but the legal limits must be understood before a community can effectively use it.

10. "Problems of Zoning and Land Use Regulation", The American Society of Planning Officials, National Commission on Urban Problems, Research Paper #2, U.S. Government Printing Office, 1968, 80 pages* (11)
    -Discussion of the problems of land use control, focusing on both the problems that have made government controls necessary and the problems that have arisen from the application of government controls.

11. "Zoning Controversies in the Suburbs: Three Case Studies", Raymond and May Associates, National Commission on Urban Problems, Research Paper #11, U.S. Government Printing Office, 1968, 82 pages* (11)
    -Case studies presented to provide a "behind-the-zoning-map" look at how land use decisions are made.

12. "Rural Zoning: People, Property, and Public Policy", Cooperative Extension Service, N.D. State University, Fargo, NE., Extension Bulletin, #23, 1974, 32 pages* (16)
    -Explanation of what rural zoning is, what it can and cannot do. Attempts to unravel the misconceptions and misunderstandings of rural zoning.

13. "Zoning--An Aid to Community Resource Development", Federal Extension Service, USDA, PA-814, 1967, 15 pages* 15¢ (11)
    -A guide presenting the objectives and process of land use zoning and related functions of local government.

14. "The Why and How of Rural Zoning", USDA, Ag. Information Bulletin #196, Dec. 1968, 58 pages* (15)
    -Explanation of what rural zoning is; explains various types of zoning tools and how they are used for specific areas.

15. "Zoning For Small Towns and Rural Counties", U.S. Dept. of Commerce, Washington, DC, March 1970, 95 pages $1.00* (11)
-Presents community development problems of small towns and rural communities, and discusses how they may be solved through zoning. Presents an excellent description of the zoning process and its inter-relationship with land use planning.

16. Information Handbook for County Zoning Offices, Institute of Governmental Affairs, UW-Madison and UW-Extension, 1976 91 pages** (1) [Found at every county zoning office]
-Intended to serve as a time-saving tool for county zoning administrators, planners, sanitarians, and others involved in land use management. Contents include functions and responsibilities of state agencies; a bibliography of land use publications; conferences and training programs; a status report on study committees concerned with land use issues; and statutory and other legal information.

17. Exclusionary Zoning: Land Use Regulation and Housing in the 1970's, Richard Babock and Fred Bosselman. Praeger Publishers, New York City, 10003, 1973**
-Good short coverage of latest developments in zoning litigation around the U.S. Focuses on exclusionary zoning, large lots, F.A.R., exclusion of multi-family housing, intentional and unintentional racial and social descrimination, advantages of balanced housing supply, regional housing plans, state implementation of the same.

18. Exclusionary Zoning: Reconciling Workplace and Residence in Suburban Areas. Edward Bergman. Ballinger Publishing Co., Cambridge, Mass., 1974**

19. Handbook of Zoning and Land Use Ordinances - With Forms, Clan Crawford, Jr. JD. Prentice Hall, Englewood Cliffs, New Jersey, 1974**
-A step-by-step guide to drafting zoning regulations that will allegedly stand up in court. Covers air rights transfer, parking regulations, PUD's ... Analysis of ordinances in force today, sample forms, etc. Complicated text for non-lawyers, seems to oversimplified to be of use in all localities, emphasis on Michigan, fragmented.

20. Land Use Controls: Present Problems and Future Reform, David Listoken, ed. Center for Urban Policy Research, New Brunswick, New Jersey, 1974**
-Covers the historical context of land use controls, the current state of the art, present and future reforms including court overrule of exclusionary zoning, more flexible controls, greater regional control, and private market alternatives (Houston).

21. The Politics of Land Use: Planning, Zoning and the Private Developer, R.R. Linowes and Don Allensworth. Praeger Publishers, New York City, 1973**
-Presents the policies and programs necessary to restructure zoning and overhaul public policy to better guide the developer. "In practice, planning and zoning have a much narrower aim: the protection of single family residence". Excellent primer on planning. Zeros in of types and failures of planning on all levels: new approaches, site planning, contract zoning, new zoning categories, court of ecology (experts), all these for greater flexibility. Metro government. "Why state planning won't work" (ineffective, subject to same pressures, removed, battling local control, etc.)

22. Strategy and Tactics in Municipal Zoning. Clan Crawford, Jr., Prentice Hall, Inc., Englewood Cliffs, New Jersey, 1969**
-Argues pros and cons of zoning regulations for lawyers not knowledgeable in land use regulation. Makes shambles of land use regulations - for any occasion.

23. The Zoning Dilemma: A Legal Strategy for Urban Change, Daniel Mandelker. Bobs-Merill Co., Inc., 1971**
-Maintains that zoning has not been implemented with enough forthought in the form of comprehensive planning. Also indicates negligence of the legal system in appraising, evaluating and limiting the situation.

24. Management and Control of Growth. (3 volumes) Edited by Randall Scott, 1975, The Urban Institute, Washington, DC 20036**
-A very valuable, up-to-date and comprehensive view of most forms of current land use controls, with discussion of the pros and cons of each. Discussion goes beyond single descriptions by including changes in attitude of the public, court litigation, and innovations.

25. "Subdividing Rural America: Impacts of Recreational LOt and Second Home Development", Council on Environmental Quality, 1976. Executive Summary, 16 pages, 75¢** (11)(1)

Audio-Visuals

2. Specialized Codes

(a) Housing and Building Codes

Publications

1. Moyer, Harriett, "Housing Codes: A Tool for Improving living Conditions", UW-Extension, Madison, Co-op Extension Program, 1971, 9 pages* (1)
the major components which make up a housing code.

2. Manvel, Allen D., "Local Land and Building Regulation." National Commission on Urban Problems, Research Report #6, 1968, U.S. Government Printing Office, 42 pages, 55¢* (11)
-Presents a statistical survey of Building Codes, Housing Codes, Planning Boards, Zoning Appeal Bonds, Comprehensive plans, and subdivision ordinances. Also includes data on code uniformity, fire safety divisions, regulatory personnel, pay rates and budgets, and community improvement programs.

3. Grad, Frank P., "Legal Remedies for Housing Code Violations", National Commission on Urban Problems. Research Report #14, U.S. Government Printing Office, 1968, 153+ pages, $2.00* (11)
-Presents housing codes and analyzes the effectiveness of various tools used to deal with violations of housing codes.

4. Slavet, Joseph S., and Melvin R. Levin, "New Approaches to Housing Code Administration", The National Commission on Urban Problems, Research Report #17, U.S. Government Printing Office, 1969, 217 pages, $1.75 (11)
-Presents ways in which housing codes can be utilized as a tool to restore the community. States that the tool is most needed and least used in rural areas, in small, low income suburbs, and in outlying working class communities and resort communities.

Audio - Visuals

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(b) Soil Sedimentation Ordinances

Publications

1. Worth, William, "Land Use Regulation Ordinance for Vernon County", "Town of Sterling", UW-Extension, Madison, 1974* (2)

2. Barber, G.J., *et al*, "A Model Ordinance for Wisconsin Soil and Water Conservation Districts Adopting Land Use Regulation for Sediment Control", U.S. Soil Conservation Service and Board of Soil and Water Conservation Service, Madison, 1974, 5 pages* (Available from: BSWCD 1815 University Ave., Madison, Wisconsin 53706)
   -Briefly describes problems of soil erosion and presents a model ordinance of land use regulations for sediment control.

3. Hatmaker, Sharon, "Review and Analysis of Existing and Proposed Regulatory Programs for Controlling Erosion and Sedimentation", Master's Thesis, UW-Madison, Wisc., 1976* (16)

4. "Proceedings - Governor's Conference on Erosion and Sediment Control", April 26-27, 1973, 148 pages (Available from: Executive Secretary, BSWCD, 1815 University Ave., Madison, Wisc., 53706)*
   -Series of presentations on the various aspects of erosion and sediment control in Wisconsin and Federal context. Also presentations on local concerns and role in area of sediment control.

5. Bodwitch, William P., Mel D. Powell, and William C. Winter, "Community Action Guidebook for Soil Erosion and Sediment Control", March 1970, 64 pages* (9)
   - Specifically written for local officials to assist them in their efforts to control sedimentation problems. Describes various approaches to organize, plan, finance, staff, and implement comprehensive sedimentation control programs. Provides local officials and administrators an understanding of the technical problems, and provides soil and water experts and technicians an understanding of the administrative aspects of sedimentation control.

Audio - Visuals

(c) Tax Policy

Publications

1. Barrows, Richard, "Property Tax Impact of the Woodland Tax Program, Town of Pepin, Pepin County, Wisconsin", UW-Extension-Madison, Ag. Economics Staff Paper, Series #108, Dec. 1975, 9 pages* (3)
-The Woodland Tax Law is used by many Wisconsin landowners to help reduce the taxes on their wood lots. This paper discusses the impacts of the Woodland Tax Law on property taxes, and presents an illustration from the town of Pepin as example.

2. ________________, "Lower Taxes for Farmland and Open Space", UW-Extension Cooperative Extension Service, Publication #G-2668, Nov. 1974, 24 pages* (2)
-Discusses the efforts of various states to reduce the tax pressures that encourage land development, and to preserve agricultural and open space lands. Focus is on use value tax laws.

3. ________________, "Farmland and Open Space Taxes: What Kind of Law for Wisconsin", UW-Extension Cooperative Extension Service, Publication #G-2694, Feb. 1975, 12 pages* (2)
-Presents alternative tax systems for preserving farmland and open spaces for Wisconsin. Discusses advantages and disadvantages of use value taxation.

4. ________________, "Use-Value Taxation: The Experience of Other States", Staff Paper Series #73, Dept. of Ag. Econ., UW-Madison, March 1974, 22 pages* (3)
-Discussion on "use-value assessment" as a policy tool to reduce the pressure for land development on the urban fringe and in recreational areas. Presents summary of specific state legislation on use-value taxation, and analyzes the impact of this type of taxation on open space, farmers, and nonfarmers in the various states. In addition, it evaluates the policy implications of use-value taxation.

5. ________________, and Monroe Rosner, "Public Land, Tax-Exempt Land and Property Taxes", UW-Extension-Madison, Research Bulletin R-2774, Jan. 1976, 18+ pages, 50¢* (2)
-Examines the impact of public lands or tax-emempt lands on property taxes. Research concludes that public lands or tax-exempt lands have very little effect on property taxes. Types of public lands examined include: county forests, DNR land, land in the Woodland Tax and Forest Crop programs, and land in programs making no payment in lieu of property taxes.

6. ______________________________, "Public Land and Property Taxes", UW-Extension-Madison, Research Bulletin R-2794, June 1976, 25 pages* (2)
-Research into what happens to property taxes when the amount of public land in a town is increased or decreased. Describes the Wisconsin property tax system and points out the general effect of public lands. Concludes that public lands have little effect on the property taxes of local people.

7. ______________________________, "Who Pays for the Wild Rivers? The Effect of the National Park Service's Wild Rivers Program on Property Taxes in Washburn County", Staff Paper No. 110, Department of Agricultural Economics, UW-Madison, Jan. 1976, 6 pages* (3)
-Study of National Park Service's land acquisition program on property taxes in Washburn County. Concludes that loss of this land from local tax roles has increased local property taxes very little if at all.

8. Barrows, Richard L., and Bruce A. Prenguber, "Transfer of Development Rights: An Analysis of a New Land Use Policy Tool", American Journal of Ag Economics, Nov. 1975, pp. 549-557* (3)
-The issues in establishing and administering a transfer of development rights program are discussed, and a hypothetical program is empirically analyzed. From the study it appears that although the TDR concept is promising, many practical difficulties remain.

9. Barrows, Richard, Bruce Prenguber, and Douglas Yanggen, "Transfer Development Rights: A New Land Use Policy For Wisconsin?" UW-Extension-Madison, Ag. Economics Staff Paper Series #87, Jan. 1975, 29 pages* (3)
-Analyzes the concept of Transfer Development Rights. Examines land use changes and public policy in Wisconsin. Answers following questions about TDR: what is TDR? where could TDR be applied? what conditions are necessary for a successful TDR program? what are the advantages/disadvantages of TDR?

10. ______________, and Richard L. Stauber, Planning for Our County Forests, Extension Bulletin G2748, University of Wisconsin-Madison, Nov. 1975* (2)
-Examines the effects of the County Forest Program on the local economy and property taxes in Iron and Marinette Counties. Also develops a methodology for use in making land use decisions on County Forest Lands.

11. Cohee, Melville H., "Impact of State Land Ownership on Local Economy in Wisconsin", Technical Bulletin No. 80. Dept. of Natural Resources, Madison, 1974 (Available from: Dept. of Natural Resources, 4610 University, Madison, WI, 53705)*
-This report examines the tax effect of selected DNR properties, and estimates their impact on local economics.

12. Harkin, Duncan A., "Relationships Between Tax Policies and Other Land Use Control", Dept. Of Ag. Econ., UW-Madison, July 1972, 26 pages* (3)
-Paper emphasis is on the relations between government and private land use, and the issue of using differential or preferential taxation for the preservation of agricultural and/or open space lands in Wisconsin.

13. ________________, and Frank A. Mulholland, "Tax-Exempt Land and the Burden of Taxation", Working Paper No.5, Center for Resource Policy Studies, UW-Madison, 1973* (3)
-This paper presents data on full value tax rates and public land, by town, 1973.

For a more detailed discussion of the Wisconsin property tax system, see the series of short papers by Richard Barrows and Monroe Rosner, Department of Agricultural Economics, UW-Madison, 1976 (Available by contacting the above):

"Overview of Wisconsin's Property Tax System"
"Wisconsin's School Aids and School Taxes"
"Town Property Taxes"
"Wisconsin's System of General Property Tax Relief (Tax Credits)
"Wisconsin's System of Shared Taxes"
"Wisconsin's Forest Crop Law"
"Wisconsin's Woodland Tax Law"
"Wisconsin's County Forest Law"

14. Keene, John C., et al, Untaxing Opern Space: An Evaluation of the Effectiveness of Differential Assessment of Farms and Open Space", Prepared for the Council on Environmental Quality, April 1976, 400 pages, 40¢** (11)(1)
-Examines the effectiveness of differential assessment laws (assessment of undeveloped land for real property tax purposes at its current or farm value rather than at its fair market value which often includes a substantial element of development value). Concludes these laws work well in general to reduce the tax burden on farmers. However, acting alone, they are not effective at preserving current use. It is only when such laws are combined with other effective land use mechanisms in rural areas can they contribute to successful long-term preservation of open lands.

15. Barrows, Richard, Mike Brodd, James Murray, and Monroe Rosner, "Negative School Aids in Wisconsin: The Case of Gibraltar (Door County) School District", Agricultural Economics, Staff Paper Series #112, Madison, Feb. 1976, 23 pages* (3)

-Explains how the new negative school aids formula works. In a case study; the report analyzes how the formula might effect taxes in the Gibralter School District. The first section discusses the property tax system, focusing on the school district. The second section contains a discussion of recent changes in financing education in the U.S., and the following three sections discuss Wisconsin's school aid system.

Audio Visuals

D. Compensation

1. Taking Issue

Publications

1. Bosselman, Fred, David Callies, and John Banta, The Taking Issue: A Study of the Constitutional Limits of Governmental Authority to Regulate the Use of Privately-Owned Land Without Paying Compensation to the Owners, Council on Environmental Quality, U.S. Government Printing Office, Washington, DC 20402, 1973, 329 pages*** (11)
-Analysis of the constitutional limits to the control of private land. Presents political and legal history of our Constitutional powers affecting land, the options open to future judicial and legislative action.

2. Costonis, John J., "A New Approach to the Taking Issue", Planning, Vol. XLII, No. 1, Jan. 1976, pages 18-21*** (16)
-Discussion in which author tries to define a "middle-ground" position in the "taking issue" debate, by presenting a new theory of "accomodating power and fair compensation".

3. Eldridge, Eber, "Land Use Issues of Today", Cooperative Extension Service, Ames, Iowa, 1975, 6 pages, 13¢* (1)
-Discussion of the market place as a mechanism for making land use decisions.

4. Eldridge, Eber, "Land Use Issues of the 1970's", Cooperative Extension Services, Ames, Iowa, 1974, 3 pages (C.R.D. 100), free* (1)
-Analyzes the economics of land use.

5. "Visual Masters For Land Use Planning", Cooperative Extension Services, Ames, Iowa, 1974, 23 pages, free (1)
-For use with CRD 100, above. A series of visuals for overhead projection dealing with the use of the police power and the power of eminent domain.

Audio-Visuals

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2. Fee Simple

Publications

Audio-Visuals

3. Easements, Purchases, and Leasebacks, Leases

Publications

1. "Conference Proceedings on Scenic Easements in Action", held at UW-Madison, Dec. 16, 17, 1966, presented by State Highway Commission, America the Beautiful Fund of the Natural Area Council, Inc., UW-Madison Law School and University Extension Law Department, 66 pages** (1)
-Presents series of seminar papers and workshop panel reports on the subject of using scenic easements as a tool to protect outdoor beauty.

2. "Workshop Manual for Conference on Scenic Easements in Action", Dec. 16-17, 1966, presented by State Highway Commission, America The Beautiful Fund of the Natural Area Council, Inc., UW-Madison, Law School, and University Extension Law Department, 85 pages** (1)
-Excellent source of information in explaining scenic easements, their application, and legal aspects and potential problems associated with their uses.

3. "Conservation Easements and Open Space Conference", Sponsored by Dept. of Resource Development and State Recreation Committee, Dec. 13-14, 1961, Madison, Wisc., 127 pages** (1)
-Report summarizes a conference on open space and conservation easements. Various papers present both a history and "cook-book" of sorts on the theory and practice of easement acquisition and management.

4. Olson, James A., "Progress and Problems in Wisconsin's Scenic and Conservation Easement Program", *Wisconsin Law Review*, Vol. 1965, no. 2, Spring 1965, pp. 352-373** (1)
-Analysis of Wisconsin's outdoor recreation and resource development program as it relates to its use of easements to achieve resource development and conservation goals. Explains the use and impact of this easement tool on the local owner's land.

5. Clarenbach, Fred A., Harold C. Jordahl, Jr., and Carlisle P. Runge. "Public Rights in Private Lands: Potential for Implementing Land Use Plans", UW-Madison, Dept. of Urban and Regional Planning, Feb. 1973, 27+ pages** (1)
-Analyzes various techniques (e.g. easements, transfer of development rights) for public acquisition of limited property rights in private lands for the purpose of land resource conservation and development control.

6. Jordahl, Harold C., Jr., "Conservation and Scenic Easements: An Experience Resume", *Land Economics*, Vol. 39, 1963, Pages 343-364** (1)
-Discusses use of the technique of scenic easements for the purpose of land resource conservation and development control.

7. Rodd, R. Stephen, "Scenic Easements and Rural Land Policy", Bulletin of the Conservation Council of Ontario, Toronto, Oct. 1973. pp. 15-18** (1)
-Brief article explaining the nature and significance of "scenic easements". Emphasis is on its relevance to land planning and policy in these rural areas which are beyond the immediate suburban fringe and which are subject to change.

8. "The Saskatchewan Land Bank Commission", University of Regina, Regina, Saskatchewan, Canada, 1975, 3 pages, (Available from: The Saskatchewan Land Bank Commission, C4 Classroom Building, University of Regina, Regina, Saskatchewan, Canada)*
-Brochure explaining Saskatchewan's Land Bank Commission, and its program of maintaining rural communities by creating opportunities for individuals to establish and operate an effective farm through land leases.

Audio Visuals

4. Transfer of Development Rights

Publications

1. Barrows, Richard L., and Bruce A. Prenguber, "Transfer of Development Rights: An Analysis of a New Land Use Policy Tool", American Journal of Ag Economics, Nov. 1975, pp. 549-557,** (3)
-The issues in establishing and administering a transfer of development rights program are discussed, and a hypothetical program is empirically analyzed. From the study it appears that although the TDR concept is promising, many practical difficulties remain.

2. ______________________________, and Douglas Yanggen, "Transfer Development Rights: A New Land Use Policy For Wisconsin?" UW-Extension - Madison, Ag. Econ. Staff Paper Series #87, Jan. 1975, 29 pages** (3)
-Analyzes the concept of Transfer Development Rights. Examines land use changes and public policy in Wisconsin. Answers following questions about TDR: what is TDR? where could TDR be applied? what conditions are necessary for a successful TDR program? what are the advantages/disadvantages of TDR?

3. Chavooshian, B. Budd, George H. Nieswand, and Thomas Norman, "Growth-Management Program - A Proposed New Approach to Local Planning and Zoning", Cook College/Rutgers University, New Brunswick, N.J., Cooperative Extension Service Leaflet #503, 26 pages, 1975*** (16)
-Presents brief history of past and present trends in zoning. Description of a "growth-management program" which utilizes the concept of transfer of development rights as a vehicle for land-use planning.

4. Gale, Dennis E., and Harvey Yawpolsky, "Agri-Zoning: How They're Gonna Keep 'Em Down on the Farm", and Peterson, Craig and Claire McCarthy, "These Farmers Said 'No Sale'", in Planning, - The ASPO Magazine, Oct. 1975, Vol. 41, No. 9, pp. 17-21*
-Presents concept of transfer of Development Rights, a case study into actions taking place in Suffox County, New York regarding this new concept in land use planning and control.

5. Woodbury, Steven R., "Transfer of Development Rights: A New Tool for Planners", Journal of American Institute of Planners, Vol. XLI, No. 1, Jan. 1975. pages 3-14**
-Presents several recent proposals which illustrate the diversity of TDR proposals, and shows how each attempts to deal with the central problem of TDR: insuring that a market exists for development rights, to give them a value, and to provide an incentive for their transfer.

6. Shales, Jared B., "Who Pays for Transfer Development Rights?" and Costonis, John J., "Whichever Way You Slice it, TDR is Here to Stay", in Planning, Vol. XL, No. 6, July 1974, pages 7-15**
-Various veiwpoints, explanations of, and future for concepts of TDR.

Audio-Visuals

VI. Administration of Land Use Programs

Publications

1. "Zoning Litigation - How to Win Without Really Losing," Jan Z. Krasnowiecki.
2. "Planning and Zoning Problems of Small City Attorneys", How to face it and get away with it, Myer Avedovech.

Both in *Institute on Planning, Zoning, and Eminent Domain*, 1976, Southwestern Legal Foundation, Dallas, Texas.

X. Appendix

A. Case Studies

1. McCormick, John and Mi[illegible] Spranger, "Experiences in Developing Comprehensive Land Use Plans," (1976).
2. Domack, Dennis, "Land Use Planning . . . When You Live Next Door to 2,000,000 People," (1975)
3. Fact Sheet and Listing of Formal Presentations on Topic of Land Use Planning within St. Croix County, (1976).
4. Anderson, Leonard, "Development of A Comprehensive Plan," (1976).
5. Repp, Ward, "Land Use Programs in Barron County," (1976).
6. Anderson, Leonard, "Case Study - Elroy-Sparta State Trail: Land Use Plan", (1976).
7. McCormick, John and Ron E. Schaffer and Mike Gorham, "Land Use Planning and Citizen Involvement--The Case of Maple Grove, Wisconsin," (1974)
8. Ihlenfeldt, Stanley and James Johnson and J.W. (Bill) Clark, "People-Planned Land Uses: Story of How Walworth County Citizens Decided on Land Use Policies for the Future," (1975).

B. Land Use Planning Materials From Other State Governments or Inter-Governmental Organizations.

Experiences in Developing Comprehensive Land Use Planning in Shawano County

John McCormick - Extension Agent and Michael S. Spranger
-June, 1976

The process of developing a comprehensive land use plan for a county is a long, drawn out process. It involves many hours of work, encompassing both successes and failures along the way. John McCormick, Extension Resource agent for Shawano County, is a firm advocate of land use planning and dedicated to the goal of developing a comprehensive land use plan for the county. In this article, he relates his experiences in attempting to achieve this goal and comments on the strategy that he has used in these attempts. His experiences and comments may prove very useful to Resource agents who are just beginning to lay the groundwork for comprehensive planning in their county.

1. Change People's Attitudes Toward Land Use Planning

The first step in developing a comprehensive land use plan is to lay a firm foundation upon which to build support. This means educating the public of the need for land use planning. In the past and present, land use planning by any governmental agency has often been met by opposition from the local citizens. Fears that government will regulate and constrain private property owners from the freedom of choice to make land use decisions are a real obstacle to overcome. To counteract these fears and to change the people's attitude toward land use planning, the Extension agent must initiate a public relations campaign in behalf of land use planning. The mass media must be extensively utilized. Articles should be written in the local newspapers discussing the need for and merits of land use planning for the county. The Extension agent should also avail himself to audio-visual resources, such as appearing on local radio stations, when the opportunity arises to discuss the issue of land use planning. In addition, the Extension agent should appear and speak on the need and merits of land use planning before local public meetings, civic clubs, county town associations, and so on.

2. "Planning is not a Dirty Word."

In his efforts, the Extension agent must stress the fact that "planning is not a dirty word." He should point out that planning is not new; it is merely a logical way to approach a problem. He should show by example that all the local members of the community "plan" to some extent. Individual families plan for their everyday needs and future wants and desires based on their available resources. Businesses develop "plans" for their present and future operations. A case can be developed for almost any individual or organization within the community to point out that they engage in planning activities.

Once this point is established, that everyone plans, it should be emphasized that, for the most part, there has been little or no planning in government up to this time. Regarding the question of land use, government has not developed much insight into the future. Instead of planning for and anticipating problems in land use, governmental agencies appear to be predicated upon crisis situations. A problem suddenly emerges on the local scene and the governmental apparatus swings into action. Unfortunately, the governmental unit may react too hastily--coming up with a less than adequate solution to the problem, or worse yet, a "solution" that will exacerbate the problem. By developing a comprehensive land use plan, the county agent can point out that the county can prepare for the orderly use of the county's land and resources, and anticipate future needs and uses of this land. As a result, the county can avoid most of the "crisis situations" that have occurred in the past which have confronted local governmental units.

3. Get Firm "Grass Roots" Support from Local Government/Citizens

The Extension agent should attempt to elicit support from the various local governmental units within the county. This is a very fertile area in which to gain support for land use planning. The Shawano County Extension Office has worked very closely with the Shawano County Planning Committee (formerly the Shawano County Zoning Committee) in fostering the need for planning. In the past, the committee was plagued by a series of crisis situations which needed their attention. The committee was often forced to make land use decisions that could have been avoided or substantially reduced had townships and/or local developers engaged in planning activities. With this background the Shawano County Planning Committee recognized the need for a county zoning ordinance which would provide for the orderly development of the county's land. In 1968, a county zoning ordinance was adopted and took effect in Shawano County. This was a step in the right direction for a comprehensive land use plan. Unfortunately, all towns were essentially zoned "as is." There was really no attempt to look ahead into the future needs and uses of the land. However, since the need for planning has been recognized by the committee, it has become much easier for the Extension agent to push for comprehensive land use planning in the county.

A very fertile group to promote the idea of planning is the town board. In a recent study, it was found that the local town board had about a 33% turnover rate annually among its members. With this high turnover rate among its members, the town board often does not have the necessary background or experience to make its decisions. With this type of situation, the Extension agent can show the relevance and merits for planning within these townships.

Above all, the Extension agent should begin by promoting planning on the local level. This is the critical place in which to build the need for planning. This approach has been stressed in Shawano County. In the past the local citizens have been highly resistant to the idea of regional planning commissions making "plans" for their area. This is, in part, nothing more than a reaction of human nature; the locals resist planning and change coming from "the outside", for people like to provide their own input and decisions for their area. The Extension agent should work with these local governmental units laying the basic foundations of the need for planning. The Extension agent should work with and plan at the village and town level until a firm base, understanding for, and support of planning is achieved. Once this foundation is set, the Extension agent can begin integrating these local planning efforts into a county-wide context.

4. Take Advantage of Crisis Situation

The Extension agent should seize on every opportunity that he can utilize to promote the need for comprehensive land use planning. Often the "crisis situations" which crop up in the local communities are an excellent opportunity for the county agent. A good case in point is the crisis situation which resulted in Shawano County when the Department of Natural Resources began closing many of the town dumps within the county. Due to state legislation [Chapter 83, Laws of 1967] a Solid Waste Management Program was adopted for the state. The statutes provided for the DNR to establish minimum standards for the location, design, construction, sanitation, operation, and maintenance of solid waste disposal sites and facilities. A statewide annual licensing program was developed to ensure that disposal operations met minimum standards.

Many of the towns in Shawano County were faced with the pressures of compliance with these new standards. Their pressures were compounded by rising waste disposal costs, increasing waste generation, difficulty in locating and purchasing acceptable land disposal sites, and the lack of local knowledge and experience in good solid waste management practices. Many of the towns could not meet these pressures, were found guilty of non-compliance of the standards, and thus their town dumps were closed by the DNR. Clearly a crisis situation was at hand. The towns began to look regionally to the county for a solution to their dilemma. In 1971 the legislature gave counties the authority to establish solid waste management plans and systems alone or jointly with other counties, cities, villages, or towns [Chapter 130, Laws of 1971]. As a result the towns of Shawano turned toward the county for help. Upon a resolution by the first town to have its dump closed, the UW-County-Extension was designated to be the agency to develop a county-wide solid waste plan.

Here was the case where the towns discovered that a regional solution was the only course to follow. In this instance, John McCormick used this crisis situation to point out the benefits of regional planning and effort. At the present time, there are three multi-township solid waste disposal sites either in operation or in the planning phase in Shawano County. Problems over finding suitable land disposal sites in western Shawano County have led to investigation with Marathon County which may lead to the possible establishment of a multi-county solid waste disposal site. Thus, within the last few years, the citizens of Shawano County have come to realize at least in part, the need for and merits of regional planning and cooperation to resolve its problems.

This need for regional planning and coordination has also been exposed in various towns' attempts to establish snowmobile trails. Here again, the towns have turned to the county as a vehicle to coordinate and develop plans for a system of snowmobile trails for the county. Thus, the Extension agent can take these "crisis situations" which are often the result of non-planning and can use them as a focal point to promote comprehensive planning for the county.

5. Use Statistical Tools/Projections to Further Argument for Land Use Planning

An Extension agent can readily make use of past and present data within a county to promote the need for planning. An agent can make projections and can show anticipated trends regarding such things as population growth, need for housing, schools, sewage facilities, etc. People are impressed with these types of graphs and charts, and the agent establishes more credibility in his promotion for planning if he has some concrete facts at his disposal. Once the citizens accept the legitimacy of these projections, the Extension agent has the public "over a barrel" in arguing for the need for comprehensive planning. By showing the citizens the high cost of providing public services (electricity, water, sewerage, schools, etc.) the agent can stress the need for orderly, long-range plans in developing the land to minimize these costs.

A crisis situation recently occurred in Shawano County which evolved around this very question of public service costs, and pointed to the need for planning. It was decided that a sanitary sewer was to be built around Shawano Lake.

Due to the lack of long-range land use plans and controls, housing developments around the lake had followed a typical "leapfrog" type pattern. With this scattered housing pattern, it was found that the cost of providing a sanitary sewer for the residents would be prohibitively high. Proper planning of these housing developments would have substantially reduced the cost of installing a sanitary sewer system.

6. Show Need for Planning in Order to Qualify for Federal Funds

In generating interest and need for planning among the citizens, the agent must use every tool that he has available to him. In his "bag of tricks" the agent should not forget the role that planning plays in securing federal funds for various local projects. Many federally funded programs through such agencies as U.S. Dept. of Housing and Urban Development require that planning be a part of the community's package in qualifying for federal funds. The agent should stress this planning aspect in local projects that can be/are financed through federal funds. For this required planning process can provide a framework upon which the Extension agent can build far more elaborate planning on the county level. Although this may smack of federal grantsmanship, the agent may reasonably justify his actions if the "end justifies the means"; that is, if a comprehensive planning scheme is furthered by these actions.

7. Build in Need for Planning at Every Opportunity

As was previously mentioned, the Extension agent should seize upon every opportunity that is available to him in this promotion of a comprehensive land use planning program. One opportunity which is available to the agent is in his annual report to the county board. State law requires an annual report to be presented to the county board. For this year's annual report, John McCormick made a graph and map of the amount of farmland that Shawano County has lost over the past eight years. The graph shows that Shawano has lost over 46,000 acres (out of a total of 395,000 acres) of prime farmland within the last eight years. After this hard fact had sunk in, the local implications of this loss were brought home where it hurts the most--financially. Loss of this land can mean a lower tax base, resulting in higher taxes being paid, lower income as jobs are lost by county residents, and also a possible lowering of state food production.

Stressing these local implications, a point can be made for some type of land use planning and/or controls to change the trend of farmland reduction in Shawano County. Thus, Extension agents should use these public meetings as a "tool" for furthering the promotion of land use planning within his county.

8. Emphasize Citizen Involvement

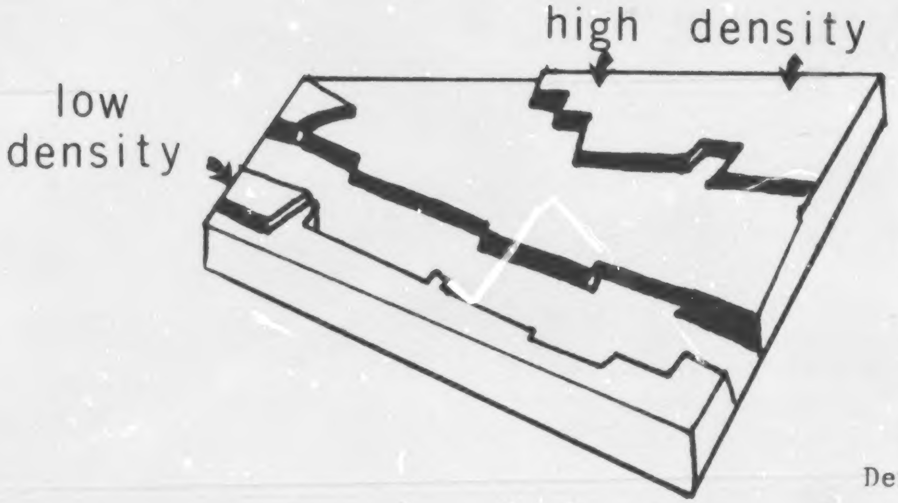
In Shawano County, heavy emphasis is on citizen involvement. A planning program will best work where the citizen understands and participates in the planning process. Much use has been made of nominal group techniques, surveys, questionnaires, etc. to elicit citizen response and involvement. In Shawano County citizen opinion plays a dominant role; if the professional agent sees something that the community misses or does not think is important he will not pursue it. Experience has shown that if support for a desired program or course of action is not there, it will stand little chance of ever being implemented.

In conclusion, it is very important for the local citizen to see that his participation is important and is a prime factor in the planning process. The Extension agent must recognize that the local citizen is the key component in the establishment of a comprehensive land use plan. The local citizen must first be made aware of the need for planning. Local involvement will develop a firm base, understanding for, and support of the planning process. From this, the Extension agent can begin building in a regional planning program for the county.

LAND USE PLANNING....

when you live next door

to 2,000,000 People



Dennis Domack
1975

Between 1970 and 1974, the population growth estimate in St. Croix County was 11.3 percent; the state average was 3.8%.

As urban sprawl spills out of the Twin Cities into the rolling farmlands of St. Croix County, new housing encroaches deeper onto prime agricultural land. There were 420 housing starts in the county in 1973 - and 380 sanitary permits issued in 1974, most of them on plots of 5 acres or more.

415 acres of land were converted from farming to other uses between 1972-74.

Nearly 35% of the St. Croix County work force crosses the St. Croix River each day to jobs in urban Minnesota.

STARTING THE LAND USE STUDY

Statistics such as these are not just numbers; they arouse genuine concern in a county where agriculture has traditionally been the primary economic base, and where people enjoy life in a rural setting. lc. Agriculture is still a $40,000,000 a year industry in St. Croix County.

In view of this rapid urbanization, citicens, local officials, and agency professionals decided that a sound land use plan was a critical and immediate need.

E.P. Rock, chairman of the St. Croix County Planning, Zoning and Parks Committee, said, "We can't stop growth in this county; it's going to happen." The question was, could that growth be channeled into an orderly process that would benefit rather than harm the county.

A consortium was organized and met first in the fall of 1972 under the coordination of Dennis Domack, Extension Resource Agent. The group was composed of member of the County Planning, Zoning & Parks Committee; the County Agricultural and Extension Education Committee; West Central Wisconsin Regional Planning Commission; Wisconsin Department of Local Affairs and Development; Soil Conservation Service; UW-Eau Claire; UW-River Falls; and UW-Extension specialists from Madison.

Through Palmer McCoy, Extension Community Development Specialist, and area director for Title I projects, funding was made available to begin a comparative Land Use Study in rapidly urbanizing St. Croix County and in Barron County, a more stable, rural county.

MAPS DRAMATIZE LAND USE POTENTIALS

To show suitable land use, colored overlay maps were prepared identifying three major uses: agriculture, recreation, and residential/light industry.

Initially, maps were made for two townships in St. Croix county.

Traffic light colors - RED, YELLOW, GREEN - were used for the color coding system. On a township showing agricultural land, for instance, prime ag land is GREEN, marginal land is YELLOW, and unsuitable land for farming is RED. This color coding was done for seven categories including such things as depth to bedrock, soils type, slope, suitability for septic systems, and depth to water table.

Four senior students in Plant & Earth Science, UW-River Falls, were hired to collect and compile data for the maps. The St. Croix

County Soil Survey was a major data source for the project. Wes Sanders, of the county SCS office, feels that "The soil survey is the necessary base of any land use planning." SCS aerial photos were also used to identify land use.

As work progressed on the project, there was regular input and discussion at township board meetings and county board meetings. Newspaper articles informed county residents of work in progress on the maps.

The maps were made in two sizes: 8 1/2x11 and 25x38. Upon completion, in 1974, they were presented to the county board, and their availability was made known, through local media, to all county citizens.

PEOPLE GET INVOLVED

Since total acceptance of the land use study depended on citizen understanding and approval, residents and officials were involved from the start.

"It was the people of St. Croix County," Domack said, "who brought up the idea that there are 2,000,000 people across the river."

"Implementation of the study must come at the local level." E.P. Rock told a meeting of the consortium.

Domack coordinated and supervised the project, with technical assistance from Professors Sam Huffman and Joe Hoffman, Department of Plant & Earth Science, UW-River Falls; Bruce Ball, Political Science Department, UW-River Falls; staff members of the West Central Wisconsin Regional Planning Commission; Zoning Administrator, Harold Barber; Assistant Zoning Administrator, Gordon Lewis; and Wes Sanders, St. Croix County Soil Conservation Service.

Part of the total effort involved the revision of the county zoning ordinance. During this process, three meetings were held in each township, with all residents invited to each meeting. The first meeting was informational, the second was expressly for citizen input, and the third followed the formal acceptance by the county board of the revised zoning ordinance. An average of 30 residents attended each meeting, and in Hudson, where land use concerns are paramount, about 150 people attended each meeting.

Richard Lehmann, Institute of Governmental Affairs, UW-Extension, attended several of the meetings to explain the updating of the ordinance. As re-written by Lehmann, the new ordinance will require county review of any new parcel of land 20 acres or less in size.

"We went to 20 acres to keep the speculator out," Zoning Administrator Harold Barber said. "And we put the Exclusive Ag District in because we feel that the people of the county are concerned about what happens to prime ag land."

ACTION CONTINUES

Land use maps, in color, have been completed for 90% of St. Croix County townships.

The publication, Guide to Land Capability Analysis Interpretation: **Troy-Hudson Townships St. Croix County, Wisconsin, was published by UW**-River Falls.

A County Planner, Dick Thompson, was employed by the county in cooperation with West Central Wisconsin Regional Planning Commission: half time for the county and half time for WCWRPC.

An Assistant Zoning Administrator, Gordon Lewis, was hired to work in the St. Croix County Zoning Administration Office, as assistant to Harold Barber.

WCWRPC developed a county-wide map, indicating existing land use.

Under the direction of Richard Lehmann, Institute of Governmental Affairs, UW-Extension, the Comprehensive Zoning Ordinance was rewritten: it was formally accepted by the county board in October, 1974. Lehmann received assistance from Zoning Administrator, Harold Barber, and from Owen Williams, St. Croix County District Attorney.

A New Richmond radio station features information on land use concerns on a weekly basis.

Feature articles on the land use study have appeared in a St. Paul daily newspaper and in county weeklies.

Some local ordinances on highway setbacks, service roads, and housing developments have been changed.

An Inter-State Consortium was formed and meets regularly, under the coordination of Domack, to discuss problems of mutual interest to the Twin Cities Metro Area and to western Wisconsin counties.

Inter-agency informational meetings are held regularly between Pierce and St. Croix counties, to communicate mutual problems and needs, and to seek cooperative solutions in the area of land use planning.

Pierce County, with many of the same needs, has employed a Resource Agent for the county extension office.

Citizens of Hudson have requested a Land Use Plan and information and data are currently being complied.

The Hammond Village Planning Committee has done an economic profile and attitude survey for the village.

A slide set on current land use trends and problems was developed by Dennis Domack and is being used extensively in the area.

WHERE IT GOES FROM HERE

A major educational program is underway in St. Croix County as a result of this Land Use Study.

"People must be involved," Domack said, "to the point that they maintain the interest that the study has aroused in the county."

The entire extension staff in the county has focused on creating an awareness and understanding of the need for land use planning. Faculty members feel that citizens must take part in evaluating the present status of land resources and in planning for the future of their county.

According to Gerald Bretl, St. Croix County Ag Agent, "This can only be accomplished by providing people with information, and by giving all residents the opportunity for involvement in the planning process."

Bretl continues to be involved in explaining use value taxation, and land use planning, to county farmers and other rural residents.

Glenn Bartelt, 4-H and Youth Agent, has invited Domack to participate in numerous 4-H programs and field trips, in order to involve youth of the county in land use planning. Domack has given his slide presentation to many youth groups.

St. Croix County Home Economist, Mary Lynch, has involved Domack in programming for homemaker groups. Domack will continue speaking to these groups about community development and land use planning.

Domack has shown his slide presentation to hundreds of county and area people and will continue this programming. He shows the presentation to service organizations, to grade school and high school classes, to classes of area universities, to church groups, and to various clubs and groups in the area.

"I show it on an average of twice a week," Domack said, "and to an average of about 50 people per meeting."

Information will be available to county residents on a continuing basis through local and area media.

Ross Pearson, St. Croix County farmer, and member of the county board, feels that, "The people of St. Croix County must be knowledgeable about the relationship of our county to neighboring counties along the western edge of Wisconsin and to urban counties across the Minnesota border. Proper decisions cannot be made without this knowledge and understanding of everybody's problems."

Field trips and other learning situations will continue to be made available to adult and youth groups in the county and the area.

Planning committies are being encouraged to make full use of the soils data and of soils maps that have evolved from the Land Use Study.

Norman Anderson, chairman of the St. Croix County Board of Supervisors, expressed the prevailing attitude of the county. "It is vital to preserve what we have," he said, "and also to make sure that our area grows in an orderly fashion."

Dennis Domack
Extension Resource Agent
6/1/76

LAND USE PLANNING PROGRAM - ST. CROIX COUNTY

- 4 years in progress
- Meetings:
  - Monthly meetings and communication with County Board of Supervisors (31 persons)
  - Monthly meetings and instruction with zoning and parks committee (10 persons)
  - Monthly meetings and working with towns of Hudson and Troy Planning Committees (12 persons)
- Student hours (does not include a one-on-one basis - agent/person which is also substantial)
- 144 meetings involving 53 persons on the average; at about 3 hours on the average = 22,896 student contact hours (The above data do not include Domack's formal presentations to many groups in the county averaging at least 3 hours per week to audiences of at least 50 persons; this equals 31,300 student contact hours. Note listing of these presentations for a one-year period.)
- Years left:
  - A comprehensive Land Use Plan should be completed in 2 years, i.e. since the Zoning Ordinance has been revised, a planner and an assistant zoning administrator have been hired. It would be at least 10 years for full and total implementation.

FORMAL PRESENTATION SCHEDULE TO INTERESTED PARTIES WITHIN A ONE-YEAR PERIOD DEALING WITH THE ISSUE OF LAND USE PLANNING

Date	Audience Type
April 4, 1974	Baldwin Industrial Committee
April 10, 1974	Pierce-St. Croix Meeting
April 15, 1974	Apple River Floaters Association
April 22, 1974	Wilson Community Meeting
April 23, 1974	New Richmond Concerned Citizens
April 25, 1974	Minnesota-Wisconsin Boundary Commission

May 1, 1974...........Soil Conservation Service
May 7, 1974...........Baldwin Homemakers
May 10, 1974..........Somerset Floaters Association
May 11, 1974..........St. Croix County Board of Supervisors
May 17, 1974..........New Richmond High School, Ecology Class
May 22, 1974..........St. Joseph Township Planning Commission
May 24, 1974..........Title I Consortium
May 28, 1974..........Pierce County Board of Supervisors

June 3, 1974..........Hudson Community Meeting
June 6, 1974..........St. Croix County Ag. and Extension Ed. Committee
June 12, 1974.........New Richmond Civic Center, Citizen Meeting
June 19, 1974.........West Central Wisconsin Regional Planning Commission
June 21, 1974.........Business Associates, Apple River
June 26, 1974.........Vocational Technical Institute - Planning Committee

July 1, 1974..........Hudson Town Board
July 2, 1974..-.......New Richmond High School Future Farmers of America
July 8, 1974..........Eau Galle Town Board
July 11, 1974.........Troy Township Planning Committee
July 12, 1974.........University of Wisconsin-River Falls, Plant and Earth, Science Class
July 15, 1974.........Unified Planning Board
July 18, 1974.........New Richmond Housing Committee
July 25, 1974.........St. Joseph Town Board Meeting
July 29, 1974.........Glenwood City Citizens Meeting
July 30, 1974.........Baldwin Zoning Hearing

August 6, 1974........Hudson Zoning Meeting
August 8, 1974........Troy Township Meeting
August 13, 1974.......St. Croix County Board of Supervisors
August 14, 1974.......Farmers Home Administration District Conference
August 15, 1974.......WEUR - Land Use Program
August 22, 1974.......Glenn Hills Community Club
August 29, 1974.......St. Croix County Planning Zoning and Parks Committee

September 3, 1974......River Falls Planning Committee
September 5, 1974......Troy Town Board
September 9, 1974......North Hudson Town Board
September 10, 1974.....Agriculture and Extension Committee
September 16, 1974.....Regional Land Use Committee
September 17, 1974.....West Central Health Planning Commission
September 18, 1974.....St. Joseph Town Meeting
September 24, 1974.....Indianhead Business Association
September 29, 1974.....U.W. River Falls - Political Science Class

October 1, 1974........Washington County, Minnesota Planning Office
October 2, 1974........Star Prairie Development Committee
October 7, 1974........Glenwood City High School - Agriculture Class
October 8, 1974........Baldwin Improvement Corporation
October 10, 1974.......DHIA Banquet
October 10, 1974.......County Homemaker Club
October 16, 1974.......St. Croix Central High School, Agriculture Class
October 19, 1974.......County Homemakers Club
October 21, 1974.......4-H Leaders
October 22, 1974.......St. Croix County Board of Supervisors
October 23, 1974.......Hudson Town Hall
October 25, 1974.......Rural Development Council
October 30, 1974.......University of Wisconsin - Stout, Menomonie - Ecology Class

November 1, 1974.......University of Wisconsin - River Falls
November 4, 1974.......North Hudson Village Board
November 5, 1974.......Land Use Conference - Statewide Meeting in Madison
November 11, 1974......West Central Community Action Agency
November 12, 1974......New Richmond Chamber of Commerce
November 14, 1974......County Homemakers Club
November 18, 1974......County Realtors Association
November 20, 1974......Troy Township
November 26, 1974......Pierce-St. Croix Meeting

December 2, 1974.......4-H Junior Leaders
December 5, 1974.......Troy Township
December 6, 1974.......New Richmond Civic Group
December 10, 1974......Hudson Downtown Business Association
December 11, 1974......County Officials
December 12, 1974......Greenfield Elementary School
December 17, 1974......Hammond Village Planning Committee
December 18, 1974......Comprehensive Planning Zoning and Parks Committee
December 19, 1974......River Falls High School - Agriculture Class
December 20, 1974......Hammond Housing Committee

January 2, 1975........Ag. and Extension Education Committee
January 2, 1975........Troy Township
January 8, 1975........Baldwin Village Meeting
January 10, 1975.......University of Wisconsin - River Falls
January 13, 1975.......Hudson Rotarians
January 15, 1975.......County Planning Committee
January 17, 1975.......Baldwin Industrial Committee
January 20, 1975.......Eau Galle Township
January 21, 1975.......West Central Health Planning Commission
January 22, 1975.......Warren Township
January 23, 1975.......Baldwin Township
January 24, 1975.......Hammond Township
January 28, 1975.......Minnesota-Wisconsin Interstate Consortium
January 30, 1975.......Soil Conservation Service

February 5, 1975.......Star Prairie Park Committee
February 6, 1975.......Pierce-St. Croix Inter-Agency Meeting
February 7, 1975.......Somerset Floaters Association
February 10, 1975......West Cap Housing Committee
February 11, 1975......University of Wisconsin - River Falls
February 12, 1975......Star Prairie Park Committee
February 14, 1975......St. Croix Highway Department
February 17, 1975......West Central Health Planning Commission
February 19, 1975......Comprehensive Zoning Planning and Parks Committee
February 20, 1975......Minneapolis-St. Paul Metro Council - Solid Waste Division
February 25, 1975......County Board of Supervisors
February 26, 1975......Women's League of Voters (Pierce-St. Croix County)
February 28, 1975......Baldwin Industrial Park Committee

March 3, 1975..........West Central Regional Planning Commission
March 5, 1975..........Polk County Officials
March 6, 1975..........County Homemakers Group
March 6, 1975..........St. Croix County Ag. and Extension Education Committee
March 10, 1975.........First Reformed Church - Young Couples Club
March 11, 1975.........University of Wisconsin - River Falls
March 12, 1975.........Minnesota-Wisconsin Boundary Area Commission
March 13, 1975.........Pierce-St. Croix Meeting
March 18, 1975.........New Richmond Lake Renewal District
March 20, 1975.........New Richmond Businessmen
March 24, 1975.........WIXK Land Use Presentation
March 26, 1975.........County Planning Committee

DEVELOPMENT OF A COMPREHENSIVE LAND USE PLAN

Leonard R. Anderson
Extension Resource Agent
Monroe County
July, 1976

The preparation of a Comprehensive Land Use Plan on a countywide basis or community requires an extensive planning process and educational program. This extensive planning process is especially necessary if the individual spear-heading the project is going to involve citizens. The process will not be as involved if the governing bodies hire a professional consultant. Under these circumstances only the elected officials must be dedicated to the idea of planning.

Personally, my firm conviction is that a comprehensive Land Use Plan must involve all segments of the citizenry farther than just elected officials. Thus a careful detailed plan must be outlined to maximize local citizen resources available on the process of developing a comprehensive Land Use Plan. There is a lack of knowledge by the citizens and elected officials of the difference between Land Use Plan and Zoning Ordinance.

There are probably many methods that can be used to design a comprehensive Land Use Plan, but the following are my thoughts on developing a plan.

On the county level the first step is to inform and obtain approval from the County Board of Supervisors. This process can take several months, because you need to:

(a) provide the awareness of the problem
(b) outline the goals of the program
(c) obtain the cooperation and dedication of the County Board of Supervisors to assist in organizing local citizen committees, this especially true of the rural supervisors
(d) obtain the cooperation and support of the Town Chairman and Town Boards of Supervisors because some of the Town Chairmen are not members of the County Board
(e) the Agricultural Extension Education Committee and Zoning Committee must be dedicated to support and attend a large number of meetings needed to review the Land Use Plan and Zoning Ordinance as it is developed

After this process is completed the next phase of the program is to organize your citizen committees in cooperation with elected officials. At the same time you develop your detailed game plan, background information and material needed to reach the goal of a Comprehensive Land Use Plan.

Appointment of Committee

(a) Alert all citizens and organizations of your program and encourage them to contact their elected officials for membership on respective committees.
(b) Encourage local citizens to serve on local township committees.
(c) In consultation with Town Boards prepare a list of prospective committee members.
(d) Prepare an invitation for the Town Board Chairmen to invite their constituents to serve on local committees.
(e) From the list of local township committee members have local committees to select a sub-committee to serve representatives of each town to serve on a countywide comprehensive Land Use Committee.

Background Material

Base maps of the county area are very important. Therefore, select a type of base map that will serve your purpose throughout the project and can be converted into a countywide Comprehensive Land Use map.

Type of maps available:

(a) Soil Survey Maps (some counties have completed soil survey maps which are excellent)
(b) Township Highway Maps - available through District Highway Office
(c) USGS Topographic Maps - need to be enlarged
(d) ASCS Aerial Photos - a complete set can be purchased for each county
(e) Base Maps prepared by Regional Planning Commissions
(f) County Plat Maps (larger size available on order from map company)
(g) County Aerial Photos (infra-red light)usually available from county survey

Structure of Local Committee Meetings

(a) Explain your process developing the Land Use Plan.
(b) Discuss and outline proposed land use districts that may be applicable to each township.
(c) Request the Town Committees to prepare a base inventory map. (what is on the land presently) Using a predesigned key that will provide uniformity throughout the county.
(d) After the local committees complete the inventory base map, a discussion is held with the committee on what type of land use districts should be outlined for these townships. In several towns, there may be a very limited number of districts as compared to a more urban town.
(e) Organize your countywide committee to review the individual town land use plans and put the countywide Land Use Plan together.

(f) Throughout this process of meetings you are preparing a zoning ordinance to carry out a land use plan, thus this ordinance must be reviewed by your committee for revision of the final product.

Upon completion of the Land Use Plan and Zoning Ordinance, there are several crucial steps necessary to implement the program:

(a) The Comprehensive Land Use and Zoning Ordinance must be presented to the County Board of Supervisors for adoption.
(b) Public meetings need to be held in each township to inform the public of the plan.
(c) Meetings with the town boards and citizens on adoption procedures.

In final analysis, as the ordinance is adopted, the administration of the plan is in the hands ofthe Zoning Committee and the Zoning Administrator. The success of the plan relies very heavily on the interpretation and management of the plan by the Zoning Administrator and the legal Counsel. This is the reason that a Land Use Control Manual is presently being developed through Monroe County and a DLAD grant with the assistance of Professors Richard Lehmann, Doug Yanggen and John Roberts, University Wisconsin Extension. The publication will be available about March, 1977.

When a Comprehensive Land Use Plan and Zoning Ordinance is adopted by the county and towns you cannot forget about the document. The management and administration of the Comprehensive Land Use Plan and Zoning Ordinance is a continual process because of change taking place daily in our communities. Without a continual up-date of the Land Use Plan and Zoning Ordinance, the map and document become outdated and unmanageable. Thus, it is imperative that the governing bodies follow the Land Use Plan and Zoning Ordinance very closely. Therefore, I would recommend that a lay, countywide committee be established to review the decisions of the Zoning Committee and the Board of Adjustment so the public is informed of the current status.

LAND USE PROGRAMS IN BARRON COUNTY

Ward Repp
Extension Resource Agent
Barron County
July, 1976

Efforts to update land use ordinances in Barron County began nearly four years ago. Using information from a Soil Survey completed in 1948, maps were prepared which defined areas according to soil type, drainage, slope and suitability for septic systems.

These maps were completed for the most populous townships in the county--Rice Lake, Barron, Cumberland, Chetek and Stanley. Funding for preparation of these maps was furnished from Title V of the Rural Development Act of 1972 and Title I of the Higher Education Act of 1973 and administered by UW Extension. The Plant and Earth Science Department of UW River Falls provided supervision for much of this project as did the West Central Wisconsin Regional Planning Commission. Two reports were prepared in which the land use capability maps are included: Cumberland Community Demonstration Project and More Houses, Fewer Farms (Land Use, Property Taxes, and Residential Development in the Town of Rice Lake). Reports for the other townships will be forthcoming. In Rice Lake Township, in addition to preparation of land use maps, a study was made of changes in land use during the last 15 years and the influence that these changes have had on tax revenue. The study showed that scattered residential development did not result in lower tax rates.

Using the information gained from the investigations outlined above, revision of the Barron County Land Use Ordinances began in 1974. Ten of the 25 townships have accepted and approved County Zoning regulations up to the present time. These ten counties are: Almena, Barron, Crystal Lake, Cumberland, Dovre, Oak Grove, Prairie Lake, Stanfold, Stanley and Sumner. Two townships (Rice Lake and Cedar Lake) have their own zoning ordinances.

Between 25-30 meetings have been held in presenting proposed revisions of Land Use regulations and maps to the public, township, and city and village officials and special interest groups like realtors, surveyors, mobile home operators, etc. Also, extensive radio and newspaper coverage has been utilized in presenting these revisions to the county residents. It can be conservatively estimated that total face-to-face presentation up to this time is between 700-800 people.

The Barron County general zoning ordinance originally had eight use districts. Since its adoption in 1970, two additional districts have been added. The county also has a shoreland zoning ordinance which adds another three districts. This ordinance applies to all shoreland areas outside incorporated cities and villages. A subdivision ordinance, a sanitary code, and a mobile home ordinance complete the present package of county land use regulations.

Two problems caused Barron County to consider revising its land use ordinances. One reason is that the ordinances are simply confusing. The parts of the ordinance package were written separately, adopted at separate times and printed as separate documents. A local official, a landowner or a citizen finds it difficult to piece together the separate ordinances and amendments. The county has discovered several discrepancies, loopholes, inadequate definitions and related problems in the course of administering the old ordinances. The ordinance needed a thorough revision, editing and streamlining of their wording. They need explanatory notes, which will help make the regulations more understandable. Secondly, the ordinances needed modernization in terms of how they deal with several key land use issues. For example, shoreland areas are now placed within one of three zones; conservancy, recreational-residential and general purpose. None of these zones protects farmlands for continued farming. None of these zones protects residential shoreland areas for purely residential uses. The ordinances do not contain a mixed use zone appropriate for unincorporated villages. At the request of the County Zoning and Planning Committee, Land Use Specialists from University of Wisconsin Extension were contacted to help revise the county's present ordinances in order to upgrade land use policies for Barron County. These two specialists, in cooperation with the Zoning and Planning Committee, the Zoning Administrator, UW Extension-Barron County and the District Soil Conservationist prepared a draft of the new ordinance for public review. This draft has taken nearly two years to prepare and has been presented to most township boards in the county, several special interest groups and the public for their review and suggestions. A final draft has now been completed and approved by the Barron County Board. Two CETA employees working in the Zoning Administrator's office have prepared zoning maps for each of the twenty-five townships which define proposed zoning districts based on soil and topographic characteristics.

The twenty-five individual township maps were accepted as a part of the Revised Land Use Ordinances by the Barron County Board. Many more public meetings are scheduled to provide townships the opportunity to accept these ordinances. Realistically, it appears that it will take another ten years of work in getting approval of the revised County Land Use Plan and accompanying regulations by all 25 of the townships.

Leonard R. Anderson
Extension Resource Agent
November 12, 1976
Sparta, Monroe County

CASE STUDY

ELROY-SPARTA STATE TRAIL: LAND USE PLAN

Situation:

The Department of Natural Resources purchased 32 miles of abandoned railroad right-of-way from Chicago Northwestern Railroad Company between Elroy and Sparta in 1965 for $12,500. A hearing by the Department of Natural Resources was held in Wisconsin Rapids with two Monroe County public officials and two local landowners present. This was the first purchase of abandoned railroad property for the development of a linear park. The original purchase made by the Department of Natural Resources (DNR) was to provide a hiking trail within the State of Wisconsin Park system. A few months after the DNR purchased the railroad property, a representative of the Bicycle Institute of America began promoting a bicycle route across Wisconsin from Kenosha to La Crosse.

The Elroy-Sparta State Trail served as a natural segment of this proposed bikeway. The trail also offered a unique feature of three tunnels, two of which are approximately 1,700 feet in length and the other 3,800 feet long. Through the pressures and publicity of Robert Cleckner, Field Representative of the Bicycle Institute of America, the trail became a major recreation bicycle trail instead of a hiking trail which now accomodates upwards of 45,000 users annually.

Fortunately, when the DNR acquired the property, the bridges and overpasses, tunnels and buildings were still intact. The rails and railroad ties were removed but the surface of rock, gravel and cinders was not suitable for bicycle travel. In order to provide a smooth bicycle riding surface, limestone screenings were placed and compacted over the existing railroad ballast. The only railroad depot remaining today is located at Kendall and serves as the trail headquarters.

Problem:

The acquisition of the railroad and the influx of 45,000 visitors annually changes the land use and has a tendency to cause conflicts.

The right-of-way purchased was approximately 100 feet wide for the 32 miles, with additional lands in the villages of Norwalk, Wilton and Kendall. Several farmers whose lands bordered the trail opposed the purchase by the DNR. They felt that the railroad should deed the property to the adjoining farms. These objecting farmers built fences across the trail in an attempt to control the users. The DNR served legal notices on the property owners and the problem was soon overcome.

A major objection cam to the surface when the farmers requested the DNR to maintain the original fences. When the railroad was operating, they assumed this obligation. The first proposal by the DNR was to supply the landowners with all the new fencing material required to maintain or build a new fence. The labor for building and maintaining the fence was the obligation of the landowner. The landowners objected to this procedure and had the local state representative hold a public meeting to intervene between the DNR representatives and the landowners.

The net result of that meeting was that the DNR would build all new fences, over a five year period on a priority basis established by a committee and the DNR trail manager. The landowners signed a committment that they would maintain the fences for 20 years. As you look ahead, the abutting landowners may have received more consideration with less out-of-the-pocket expense if they would have used the DNR's proposal of providing new fencing materials for repairs and construction. As it now stands, they must assume all fencing expenditures for the next 20 years and possibly beyond.

After considerable discussion with local people, village representatives and our Rural Development Council, it was decided to prepare a Land Use Plan and Zoning Ordinance along the trail in 1974. For discussion purposes with local people, we requested the Soil Conservation Service to provide us detailed soils maps of lands one half mile wide bordering the trail. All major soil types were classified according to agricultural capabilities, suitable for septic tanks and soil absorption systems, wetlands, residential, recreation and commercial developments.

The first objective was to delineate lands as exclusive for agriculture for operating farms with no residential development except associated with farming operations, recreation or commercial development. Our second objective was to incorporate commercial and recreation development within or adjacent to the Villages of Norwalk, Wilton and Kendall so public water and sewer facilities would be available to the development.

Our third objective was to preserve the land areas adjacent to the tunnels from commercial development as to maintain the scenic beauty and esthetic value.

A series of special interest meetings were scheduled in the City of Sparta and Villages of Norwalk, Wilton and Kendall . The meetings were announced in the local media--newspapers and radio. In addition, each landowner abbutting the trail was mailed a letter announcing the meetings and outlining the purpose of the Land Use Plan.

The first meeting was held in the City of Sparta with about 30 property owners attending. The discussion was fairly well-received by most of the landowners. Although there was some objection to stringent controls of land use, the landowners were not too vocal. The local newspaper representative, who was present, wrote an article that created the interest for objections. The newspapers misquoted the intent of an exclusive Agricultural District that we were never able to overcome. The paper stated that there would be no new buildings constructed in the Agricultural District. This pointed remark created considerable discussion among the landowners and generated overflowing crowds at the balance of the meetings.

A landowner near Wilton purchased advertising space in the Wilton Shopper encouraging people to attend our meetings in those villages because we were proposing to control all construction within one half mile either side of the trail. The people attending the meetings came to destroy the Land Use Plan Concept. Even though we attempted to discuss the Land Use Concept and its alternative to arrive at concensus of what they would accept in a Land Use Plan, we were unable to reach a conclusion. The opponents had prevailed upon the citizenry in the villages and rural areas that any Land Use Plan proposal was detrimental to their property values.

Further, they assumed that this Land Use Plan was conceived by the Department of Natural Resources, even though I had served as an Extension Agent in Monroe County for nearly 20 years. They felt I was a DNR representative and was speaking for the DNR. Through this process of meetings, we heard about every person who ever climbed over the fence, asked for a drink of water, use of toilet facilities or use of their telephone.

The people who requested that we prepare a Land Use Plan attended the meetings. But in the heat of the debate and discussion, they did not speak up to defend the program. Therefore, the Extension Agent stood before the people explaining the Land Use Concept and taking the abuses vented by the aroused citizenry.

After this series of events, the Land Use Plan was put in mothballs until a crisis arises when local people will be more receptive to the proposal.

Implications:

1. The majority of landowners bordering the Elroy-Sparta State Trail and in the villages were against a land use proposal they felt would assist the Department of Natural Resources.
2. The educators should have organized a larger and more representative citizen committee from the towns and villages to develop the Land Use Plan.
3. Land use planning of this type requires a considerable committment of time to evolve the plan. The committee attempted to obtain their objectives in a short period of time.
4. The Land Use Plan concept was supported by local elected officials without complete knowledge of their constituents.
5. Land use planning is a public policy issue, that must be discussed over a long period of time so that citizens are familiar with the concept and the plan.
6. Land use planning must be separated from any state or federal agency. Local people object to programs that they believe are dictated by top levels of government.
7. The educators and planners must be prepared to discuss land use planning when a crisis arises, especially one that personally affects the people involved. Under these circumstances, the plan has a better chance for adoption.
8. The increase in real estate taxes and the potential for resale of property affects the attitude of the people toward land use planning.
9. The proposed Land Use Plan may have been too sophisticated for the local people to digest and comprehend in such a short span of time.

G2773

LAND USE PLANNING AND CITIZEN INVOLVEMENT

The Case of Maple Grove, Wisconsin

Ponderosa Estates
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John R. McCormick, Ron E. Shaffer, and Mike Gorham

This report does more than present a case study of citizen involvement in land use planning. It describes an improved method of getting citizens involved in the planning process. Extension professionals and other leaders will find this method useful for many types of planning on many types of subject matter.

Land use planning tries to improve man's relationship to land, his basic natural resource. That man values land as a resource is clear — history is replete with land use conflicts among men and nations. Competing uses for land will continue. But land use planning can help accommodate alternative uses of land and avoid conflict and poor use. Some land use conflicts arise from the question of who decides how land should be used. Generally, private land owners make most of these decisions based on market prices and the market system. Such decisions are often in the interest of only a few individuals. But because most land use questions have effects on the community as a whole, citizen involvement in land use planning is needed.

Community involvement can lead to better land use planning. A community should undertake planning for two basic reasons. The first is to avoid or prevent undesired events — such as the random loss of agricultural land to urban uses. The second is to accomplish desired or expected events — such as to install sewer lines to guide residential development.

A land use plan is a policy statement. It tells how a community intends to meet and deal with future land problems. However, policy statements have one possible disadvantage. Putting policy on paper often limits the exceptions people are willing to make. Therefore a good policy statement, and a good land use plan, must be flexible enough to meet various needs and the changing times. A useful plan considers:

- citizen desires
- physical limitations of soil, geology, topography
- the local economic base
- social and environmental concerns

Public planning is often criticized as lacking effective citizen involvement. When citizens aren't involved, some plans are rejected outright, other technically proper plans are timidly implemented. The objective of this report is to outline the steps in preparing a land use plan, emphasizing a method which achieves effective citizen involvement. Although this method was utilized for land use planning, it can be used in making other types of group decisions, especially where strong differences of opinion might prevent resolution of the issue.

THE MAPLE GROVE PROBLEM

Maple grove is a township in the southeastern corner of Shawano County, Wisconsin, about fifteen miles from Green Bay. The urban expansion of the Green Bay area has spilled over into the township. Two facts strikingly illustrate this urban spillover: between 1969 and mid 1973, 38 non-agricultural residences were built, and 1,400 acres of land were removed from agricultural production.

These statistics warned town leaders of future urban sprawl and the associated increases in cost of providing public services, of increases in assessed land values, and of possible conflicts between nonfarm home owners and farmers. Further, the major economic sector in the township – production agriculture – was losing its resource base.

CITIZEN AWARENESS

Citizens were concerned enough with these trends to explore ways the township could adapt and guide growth in their area – land use planning became the focus of their concern.

This concern did not develop suddenly. For several years, many people and agencies (University Extension, the Regional Planning Commission, civic organizations) operating in Shawano County had been talking about land use planning. Most of these discussions were educational and informative, with the purpose of showing what land use planning could and could not do. Thus when town officials of Maple Grove became concerned about the problems of spillover of urban growth, they approached an agency representative previously active in this educational process –the local Extension resource agent.

GETTING CITIZEN INVOLVEMENT

Town officials wanted to get citizen involvement. They wanted to determine citizen perception of problems facing Maple Grove, and they wanted citizens to be involved in the actual development of a town land use plan.[*] Town leaders knew citizen involvement was crucial – a successful plan had to have citizen support, trust, and influence. That means that citizens had to be involved from the beginning in setting goals and objectives, in deciding how to achieve these goals, and in determining how to implement resulting policies.

There are many ways to get citizens involved in planning. Officials can discuss problems with influential citizen leaders, the town board can appoint citizen committees, or citizen opinions can be solicited by open forums or surveys. Some of these methods have weaknesses – they don't give every citizen a chance to participate, or they permit a few individuals or vested interests to dominate discussions, or they don't give possibility for free, open and continued discussion on controversial subjects.

THE PPM METHOD

The so-called "program planning model" (PPM) is a "nominal group" method which improves on these other methods. A nominal group is operating when individuals work in the presence of others but do not interact in the traditional group format. The PPM, developed by Andre Delbecq, is a structured process alternatively permitting both individual efforts, group interaction, and eventual setting of groups priorities. [**]This method can solicit group ideas concerning controversial topics without getting individuals enmeshed in personalities or arguments.

Maple Grove chose the PPM method. To begin the process, the town board mailed a postcard to all town taxpayers announcing the meeting date, place and general purpose. Thus every taxpayer received an invitation to participate. Here is a reproduction of the postcard:

To: Maple Grove Citizens

Community development will be the subject of a meeting of all citizens of Maple Grove on Wednesday evening, December 12th at 7 o'clock in the Maple Grove Town Hall.

The purpose of the meeting is to give all citizens an opportunity to express their ideas of the needs of their township. It is your opportunity to express your opinion and be a determining influence on what Maple Grove will look like 25 years from now. Are the zoning restrictions adequate or inadequate? Are recreation facilities meeting the needs of the citizens? Should cluster residential areas be promoted? These are but a few of the possible subjects for discussion.

The meeting will be conducted by the chairman, a representative of regional Planning and University Extension.

Town Board
Herman Maas, John Maroszek, John Bluma

---

[*] For a summary of other citizen concerns, see "Comprehensive Plan: Township of Maple Grove," University of Wisconsin-Extension, Shawano, 1974. Land use problems were the major concern of those involved in the meeting.

[**] Andre L. Delbecq and Andrew H. Van de Von, Center for the Study of Program Administration, Graduate School of Business, University of Wisconsin-Madison, cost $4.

The town board chairman called the meeting to order and explained the purpose of the meeting. Then a resource person familiar with PPM discussed the technique. He emphasized that the purpose was to solicit information from participants on problems facing Maple Grove (it was not to discuss solutions to yet undefined problems). He asked participants to make only short key-word statements of the problems they listed. The resource person indicated that each participant should work silently and independently — only after each person had an opportunity to present his list of problems would discussion be allowed.

Then the group separated in sub-groups of six to ten people. (Such meetings should be held where space allows sub-groups to meet.) In sub-groups, each citizen received a sheet of paper with the statement and questions (reproduced below) and space to write ideas and answers:

> Towns and Communities in Shawano County currently face a series of problems for which both immediate and long-range answers are needed. We are attempting to pinpoint the problems.
>
> As a citizen of the area you can be of great help in identifying these problems and needs. Would you write your response to these questions?
>
> **In your opinion, what are the development problems needing attention over the next few years? What suggestions do you have to plan for the future of the town? What should your town look like in twenty years?**

How such questions are structured is crucial to the success of the nominal group process. The questions should not lead citizens to any particular responses, but should elicit citizens' own ideas of town problems. The question should be written to get citizen information needed to assist policy makers (town officials), without reflecting the opinions of any formal or informal leaders. In givng these questions, the group leader should use an example unrelated to the question under discussion, to avoid biasing responses.

The Maple Grove participants worked silently and independently for about 20 minutes on the questions. Individuals who finished early were asked to review their comments for completeness. (Individuals may need to be reminded not to disturb or talk to others still working.)

After participants had listed their answers and concerns, a neutral person joined each subgroup to be a recorder. The recorder was neutral because he did not participate in listing ideas, and he was not permitted to enter discussion. The recorder used a flip chart to list issues raised by each member of the sub-group. He asked each participant to give only a brief statement of problems he or she had listed. The recorder reported **verbatim** the issues raised — he was not allowed to reword that issue or combine it with other issues. Each person made only one statement at a time, continuing around the sub-group until each person had a chance to present all of his issues. No discussion was permitted so that each individual could present ideas without having to defend them.

The next step was the discussion phase — individuals clarified the problems they listed, but no combining of problems was allowed. After about 15 minutes of discussion, the recorder asked individuals to silently and privately select (rank) the five most important items from the total list. The most important item received a weight of 5, the second 4, and so on down. The recorder tallied the votes by taking each problem listed and getting each person's rank for that problem. The votes were then summarized for each subgroup, and the major issues then presented to the total group. Thus each participant's ranking was added to make a ranking of problems facing the town.

The town chairman thanked the citizens for their interest and participation and stated that the town board would review the list of problems. No suggestions of solutions were given so as not to create false expectations.

After the meeting adjourned, the resource agent collected all the issue cards, ballots, flip charts, etc. He summarized the material and turned it over to town board officials for their use in setting town policy for the coming year.

OUTSIDE HELP

Although the PPM method achieves citizen input in the land use planning process, completion of a land use plan requires technical information and skills that citizens often don't have. Therefore the Maple Grove town board sought help from outside the community.

They contacted the Regional Planning Commission for its counsel on planning processes and techniques. The Regional Commission provided hints on technical short cuts and on how to avoid nonproductive approaches. They shared copies of aerial photos and base maps, cutting time required to compile base information. The maps and photos helped locate buildings (farm, nonfarm, vacant) and topographical features (roads, streams, wetlands, forests).

The Wisconsin Department of Transportation gave information on future highway projects in the area. This information is vital in land use planning because of the impact of highway locations on development patterns and traffic patterns. Similarly, county highway construction plans were reviewed.

The Soil Conservation Service was contacted. Land use planning must consider physical limitations of soils for building and for sewerage disposal. The SCS provided this information — fortunately they were completing a major soil survey of the township at this time.

The Applied Population Lab of University Extension in Madison provided information on population trends and projections, using 1960 and 1970 census information to describe the demographic characteristics of the township and neighboring locales.

Individuals in the Wisconsin Department of Agriculture, the county clerk, and the Extension agricultural agent of Shawano county provided information on production agriculture. This was important because the initial desire for a land use plan was to prevent erosion of the town's basic economic sector — agriculture.

County officials helped. The county registrar of deeds, the land use planner, and the zoning administrator were contacted for information on new houses, building permits, and zoning variances granted in the preceding five years. This helped document recent housing trends.

The town chairman and Extension Resource agent visited with the town assessor to determine which buildings on the aerial photos were farm residences, other farm buildings, nonfarm residences, mobil homes, and vacant buildings.

Finally, information on soil types, physical features (roads, buildings) and natural features (wetlands, streams) was plotted on a base map. The base map depicts the current situation and could be used to show alternatives for the future. (A draftsman or someone with similar skills is necessary to complete this phase of the land use plan.)

RESULTS

One of the town board's first actions was to appoint a five member planning commission (permitted by Wisconsin Statutes 60.74 and 61.35). The town planning commission, with the Extension resource agent, then analyzed the problems and issues raised at the citizen meeting. They combined the citizens' ideas with the information collected from outside agencies and individuals to form a draft of a land use plan.

With a land use plan tentatively formulated, the commission returned informally to confer with citizens and get their ideas on the plan. The revised plan was presented and approved at a special town meeting. After that the new zoning map was presented to the county zoning committee for a public hearing on the proposed zoning changes. The county board approved the new zoning map after favorable action by the zoning committee.

Maple Grove's efforts had an additional accomplishment – an amendment to the county zoning ordinance. The amendment made new non farm residences a conditional use in agricultural zones rather than a permitted use. The conditional use requires a public hearing before a zoning variance can be granted. This gives the community some control over random residential development in agricultural areas, yet recognizes the need for future residential development.

The plan was also presented to the community. But rather than presenting citizens with a comprehensive plan containing a multitude of sophisticated maps, the town prepared a relatively simple and inexpensive report and distributed it. The report gave trends, goals and objectives that citizens had set, with the policies that were being implemented to reach those goals.

CONCLUSIONS

1. The PPM or nominal group approach can achieve active citizen participation with a minimum of personality conflicts. Citizens, the town board, and the planning commission can all identify their problems, goals, policies, and implementation procedures. And citizen input helps insure implementation of such a plan.

2. Involving citizens from the beginning of the planning process avoids negative reaction. A plan prepared by an outside consultant (private or public) would not likely be as readily accepted or understood.

3. Planning always takes a great deal of time and labor. The nominal group reduces time compared to other citizen involvement processes, but it doesn't produce a land use plan immediately. Consulting with other agencies and individuals helps pinpoint planning priorities, reducing planning time.

4. A chief criticism of local planning is that it may not consider implications of regional scope. Although Maple Grove is an example of local planning, the town board and town planning commission kept county and regional considerations in mind. This awareness shows in such statements as "we cannot deal with this issue at the township level."

5. Other units of government (villages, cities, counties, school districts) can also use the PPM technique to plan. Alternative uses would include items such as economic development problems, pre-budget public hearings, and soliciting employee's ideas about problems in a business or agency.

COOPERATIVE
EXTENSION
PROGRAMS
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This publication is reprinted and supersedes the October 1974 edition of the same title previously published by the Department of Agricultural Economics. Earlier edition may be used.

University of Wisconsin–Extension, Gale L. VandeBerg, director, in cooperation with the United States Department of Agriculture and Wisconsin counties, publishes this information to further the purpose of the May 8 and June 30, 1914 Acts of Congress; and provides equal opportunities in employment and programming. This publication is available to **Wisconsin residents** from county Extension agents. It's available to **out-of-state purchasers** from Agricultural Bulletin Building, 1535 Observatory Drive, Madison, Wisconsin 53706. **Editors,** before publicizing, should contact the Agricultural Bulletin Building to determine its availability. **Order by serial number and title;** payment should include price plus postage.

DECEMBER 1975
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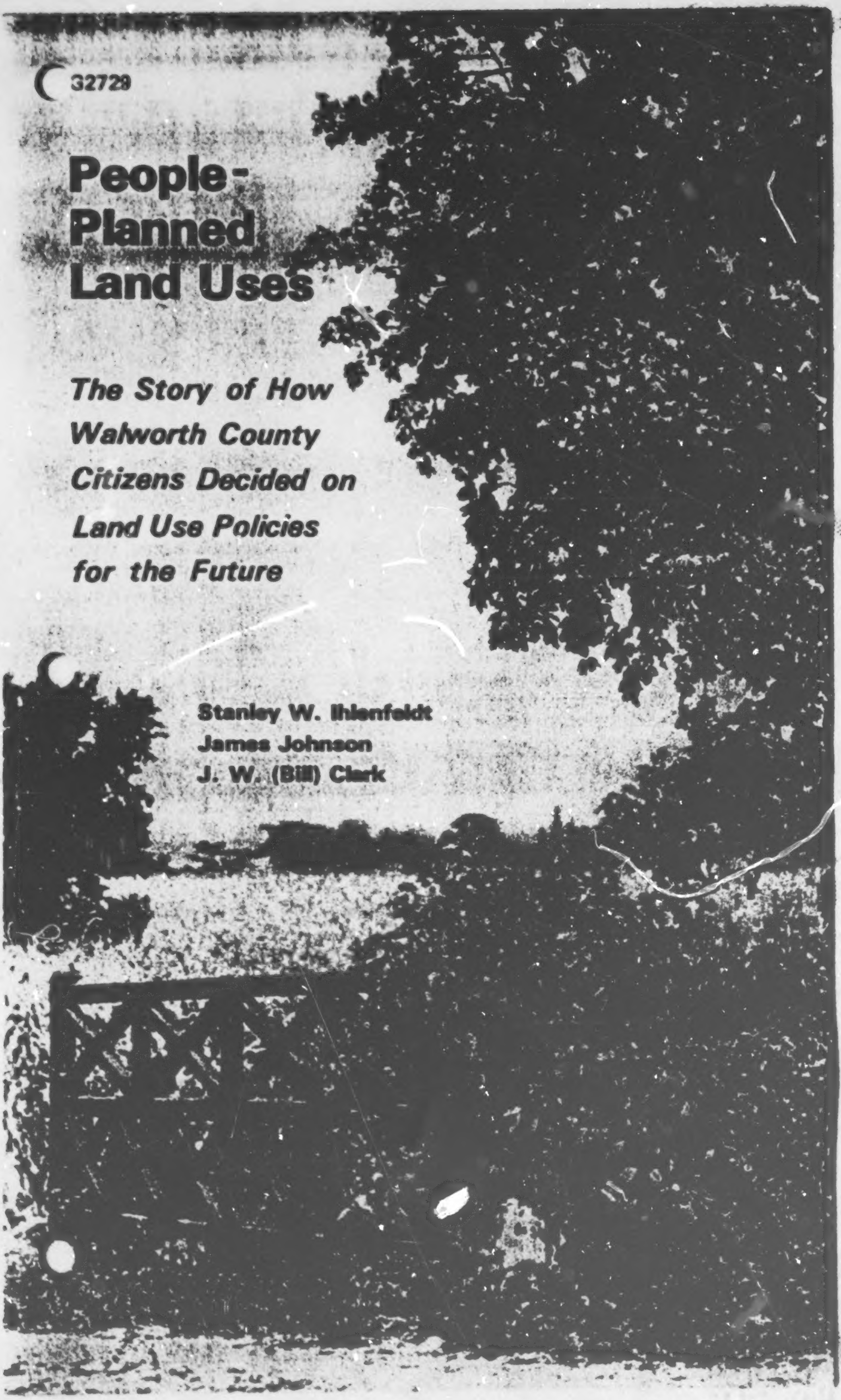
G2773 LAND USE PLANNING AND CITIZEN INVOLVEMENT



32728

People-Planned Land Uses

The Story of How Walworth County Citizens Decided on Land Use Policies for the Future

Stanley W. Ihlenfeldt
James Johnson
J. W. (Bill) Clark

WALWORTH COUNTY

Walworth County consists of 16 townships and covers an area of 576 square miles. Population is 65,000. Elkhorn, the county seat, is a small and attractive city located in the county's exact center. A variety of other small cities and farm-type villages are sprinkled throughout the area.

In many respects Walworth is a unique county. Located in Southeastern Wisconsin's most heavily populated area, it remains rural with more than 1,300 farms. The farmland is of excellent quality and agriculture remains one of the dominant sources of income. The county is blessed with 37 lakes. Some are large and provide fishing, boating and other water sports. Others are small and add beauty to the landscape.

The lakes, plus proximity to great population centers like the metropolitan complex which runs from Milwaukee to Chicago, have made the county a famous recreation center. Other close-by cities are Waukesha, Janesville, Rockford, Beloit and Madison.

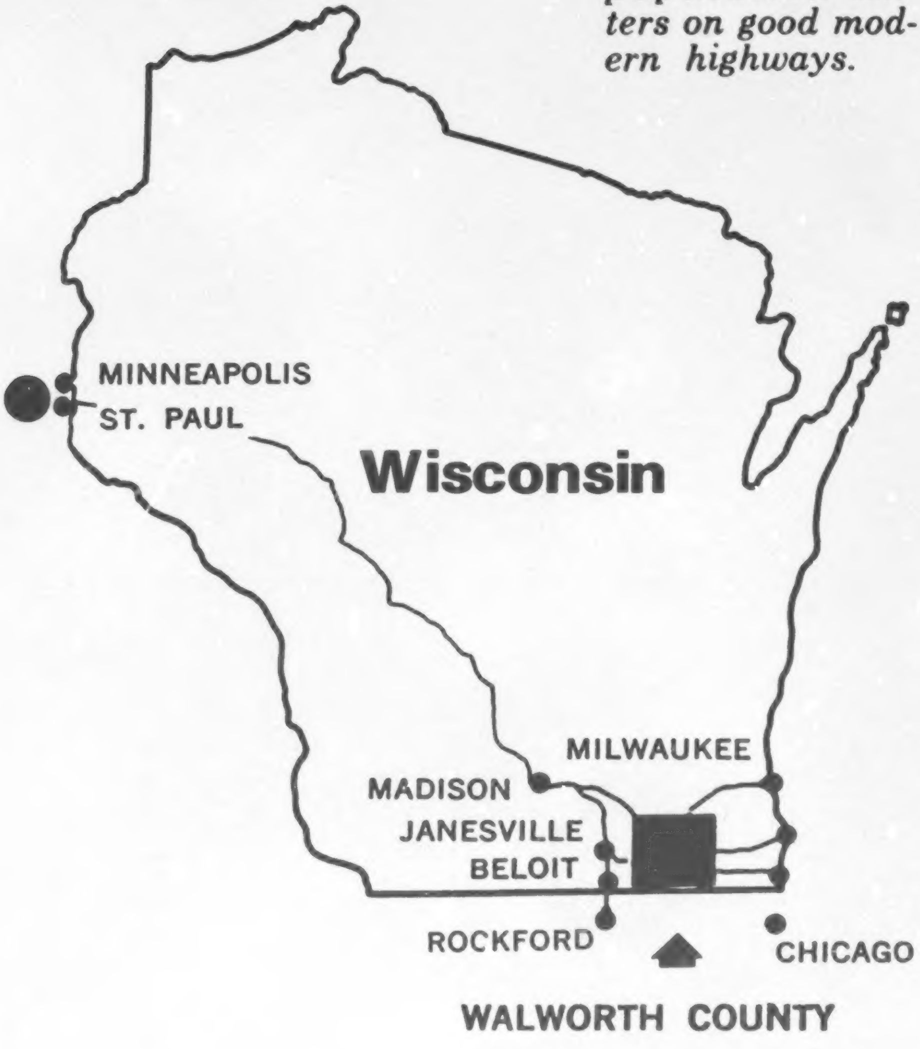
Walworth boasts of having generated the largest recreational income of any county in Wisconsin—value $8 to $9 million per annum. For many years, Walworth's lakes in a countryside setting have attracted outside visitors for summer and winter fun.

Another source of income is industry—clean industry, however—manufacturing pipe packings, soy sauce, golf equipment, bedding, electronic equipment, musical instruments and frozen foods.

Fortunately for the county's resources, many of the leaders recognized some years ago that unless something was done, the county's countryside, productive farmlands and water resource would be overrun by home builders—some seeking refuge from the crowded and smoggy areas in which they live. Many of the residences owned by outsiders are estates with beautiful houses and surroundings.

Stanley W. Ihlenfeldt is chairman and agri-business agent, Walworth County, University of Wisconsin–Extension. James Johnson is Walworth County Planner. J. W. (Bill) Clark is specialist in environmental resources. Division of Economic and Environmental Development, University of Wisconsin–Extension.

Walworth County in Southeastern Wisconsin is in the heart of the great Midwestern recreation area. Only minutes away from the population centers on good modern highways.


MINNEAPOLIS
ST. PAUL
Wisconsin
MILWAUKEE
MADISON
JANESVILLE
BELOIT
ROCKFORD
CHICAGO
WALWORTH COUNTY

HERE'S HOW IT ALL STARTED

Stan Ihlenfeldt, County Agricultural and Extension Agent:

I've always believed in teamwork at the county level. The Soil Conservation Service, (SCS) has its county office close to mine. SCS began a complete soil survey of all the county's land early. The survey was finished in 1966 and we had a major tool to work with.

We developed soil maps for every township in the county, held lots of soil survey demonstrations, and interested all vo-ag teachers in setting up high school soil judging contests. We developed soil profiles, built picture-slide sets and set out to tell our story.

The sanitary code was approved by the county board and went into effect in 1967. Ours was the first approved sanitary code in the United States that used the soil survey to regulate land uses. This sanitary code was our first step toward comprehensive planning and a well-conceived zoning ordinance.

BUT WE DIDN'T STOP WITH A SANITARY CODE

Jim Johnson, Walworth County Planner:

The sanitary code was really the first action taken to implement a regional plan. The Regional Land Use and Transportation Plan for South-East Wisconsin was adopted by the county board in 1968, and the county has since adopted several ordinances and programs under the guidance of this plan.

B

In 1971 a Shoreland Zoning Ordinance was adopted which, while still permitting development, provided special environmental protection measures in areas next to lakes, streams and flood plains. A county-wide subdivision ordinance was also adopted, again using soil survey data and applying conservation standards.

New land use programs were dovetailed with the new regulations, and included: 1) jurisdictional highway plan, 2) a park and recreation plan, 3) solid waste management studies, 4) industrial development promoting agricultural and recreational industries, and detailed watershed and community plans.

We feel that it is very important to have a comprehensive approach to land use control so that all ordinances and programs both complement and support each other. This can only be achieved with a good plan.

PEOPLE GET INVOLVED

Stan Ihlenfeldt:

Jim Johnson once told me that we held 567 meetings from 1967 when we began drafting the new zoning ordinance until 1974 when these ordinances were approved by the county board. Whether it was 567 or 757 doesn't matter. The point is this: if you want to develop a zoning ordinance people will support, you have to contact many different people and groups. It has to be *their* zoning ordinance—not yours and not the county planner's.

Here are some of the groups of people we contacted—and sometimes often—ag. teachers, night schools, real estate agents, attorneys, engineers and bankers. We met with clergymen, civic organizations, garden clubs, farm groups and the historical society; organized a Walworth County Beauty Council, a special farm council; and helped establish a county Audubon society. We involved women and women's groups.

We met with plumbers, surveyors, city officials and town officials. We held seminars in the library. Our educational campaign was continuous and when we finished most everybody knew or should have known what zoning and this ordinance was all about.

A FEW CONCLUSIONS

Jim Johnson:

I've been told by many people that ours is the best and most complete zoning ordinance they've seen. In addition to its strong reliance on the regional plan, unique features include incorporation of soil survey data in its regulations, and adoption of "County Conservation Standards" based on the SCS Technical Guide. It is an excellent plan because it's the plan developed and supported by the people of Walworth County. It isn't my ordinance. It isn't Stan's. It isn't an SCS ordinance.

My role was that of a technician. So also were our SCS people. Stan was the *broker* who contacted our clients. He was the educator who kept things stirred up—learned what the local people did and didn't want Walworth County to be like. At the same time he learned what kind of an ordinance they would accept and implement.

A good county zoning ordinance must be the people's ordinance. To get that kind of ordinance you need a county Extension office, a county planner and an SCS staff that work together.

A BIRD'S—EYE VIEW OF THE ORDINANCE

The Walworth County ordinance is detailed and comprehensive. In brief, it anticipates and accepts growth as inevitable. Its purpose is to control that growth, to maintain the prime farmland and to protect the beauty of the county's lakes, countryside and streams. It recognizes a wide range of potential problems such as uncontrolled development and provides the legal tools for controlling urban sprawl.

The county land use plan is based in part upon a top-notch soil survey completed by the Soil Conservation Service in 1966 and upon environmental corridor surveys.

Most of the rural land would fall into one of the following classifications:

A-1 Prime Agriculture District—42 percent of the county. Highly productive land with uses limited to farming. (35 acre parcels)

A-2 General Agriculture District—Marginal farmlands and smaller farm parcels. Principal uses would be hobby farms, horse farms, truck farms, game farms, orchards, etc. (10 acre parcels)

A-3 Agriculture Holding Districts—Productive farmlands in the path of development. Large acreage requirements permit planned approach to development. (35 acre parcels)

C-1 Wetland Conservancy District—11 percent of the county. Includes wetlands, marshes and floodplains. Use regulations permit existing farm operations, recreation and game management. No construction permitted.

C-2 Upland Conservancy District—10 percent of the county. Includes forests, steep lands, scenic lands and major upland watersheds. Uses would be limited to farming, recreation and low density residential. (5 acre parcels)

C-3 Conservancy—Residential District—Allows low density residential use on upland forest located adjacent to urban areas. (2-1/3 acre parcels). Conservation standards necessary to prevent erosion and protect natural vegetation are required for any use or development in all districts.

County Planner Jim Johnson says, "Our ordinance should provide adequate development lands to accommodate growth in Walworth County. The county can remain rural in atmosphere, with its natural resources retained."

Experts attribute the ordinance's strength to the following:

1. The ordinance is based upon comprehensive planning.
2. The ordinance is integrated with regulations and other planning programs all based upon a comprehensive soil survey and other natural resource inventories.
3. A continuous and on-going education program geared toward citizen input resulted in wide-spread acceptance of the entire package.

University of Wisconsin—Extension, Gale L. VandeBerg, director, in cooperation with the United States Department of Agriculture and Wisconsin counties, publishes this information to further the purpose of the May 8 and June 30, 1914 Acts of Congress; and provides equal opportunities in employment and programming. This publication is available to Wisconsin residents from county Extension agents. It's available to out-of-state purchasers from Agricultural Bulletin Building, 1535 Observatory Drive, Madison, Wisconsin 53706. Editors, before publicizing, should contact the Agricultural Bulletin Building to determine its availability. Order by serial number and title; payment should include price plus postage.

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B. LAND USE PLANNING MATERIALS FROM OTHER STATE GOVERNMENTS OR INTER-GOVERNMENTAL ORGANIZATIONS

1. Land: State Alternatives for Planning and Management, Council of State Governments, Iron Works Pike, Lexington, Kentucky, 40511, #RM 546, 1976, $4.00**
   -Problems and alternative methods for state land use planning involvement are scrutinized. Document traces the history of state involvement in land planning and draws from the resources of six separately published background papers. The background papers are:

   a) "Intergovernmental Relations in State Land Use Planning" (#RM 536, $2.00)
   b) "Data Needs and Resources for State Land Use Planning" (#RM 540, $2.00)
   c) "Organization, Management, and Financing of State Land Use Programs" (#RM 541, $2.00)
   d) "State of the Art for Designation of Areas of Critical Environmental Concern" (#RM 546, $2.00)
   e) "Issues and Recommendations--State Critical Areas Programs" (#RM 548, $2.00)
   f) "Manpower Needs for State Land Use Planning/Public Involvement in State Land Use Planning" (#RM 551, $2.00)

2. "Natural Resource Data Needs Recommendations," Council of State Governments, Iron Works Pike, Lexington, Kentucky, 40511, #RM 574, February, 1976, $3.00, 25 pages**
   -Identifies the newer class of environmental, land use and planning data users and their special needs for natural resource information. Report reflects the findings of independent studies conducted by the Council of State Governments; UW Institute of Environmental Studies; American Society of Planning Officials; Arthur D. Little, Inc.; and the U.S. Geological Survey. Presents recommendations for the types, formats, and other data services that would be most useful for meeting the needs of specific users.

3. "Our Effluent Society," Council of State Governments, Iron Works Pike, Lexington, Kentucky, 40511, #RM 523, $3.00, 1974.
   -Reviews the states' solid waste management issues. Portrays still new perspectives on governmental problems related to solid waste management practices in the U.S. and describes the difficulties in such management in terms permitting better evaluation by political institutions.

4. "Integration and Coordination of State Environmental Programs," Council of State Governments, Lexington, Kentucky, 40511, #RM 570, $5.00, 1975.

-Every state has programs for air quality, water quality, and solid waste management. This study explores the effectiveness of various approaches to coordinating goals and activities of separate state programs.

5. "State Planning: New Roles in Hard Times," Council of State Governments, Iron Works Pike, Lexington, Kentucky, 40511, 1976 (soon to be published).
-This executive summary for Governors is prepared to highlight the need for a planning process at the state level and to present alternative structures and possible functions such a process might assume.

6. "State Community Development Policy: The Case of New Communities," Council of State Governments, Iron Works Pike, Lexington, Kentucky, 40511, 1976 (soon to be published).
-Report explores existing and potential roles state government can play in the process of community development. It makes recommendations to federal and state governments to improve management and coordination for implementing new communities and traditional community development programs.

7. "State Growth Management," Council of State Governments, Iron Works Pike, Lexington, Kentucky, 40511, May, 1976.
-Current assessment of the direction of state activities in growth policy development based upon a variety of source materials and field interviews. In particular such pressing concerns as economic development in a time of recession, energy conservation in an era of shortage, and policy trade-offs relative to environmental programs, are discussed. Also, the structures, objectives, and approaches to state growth policy are outlined.

The above materials can also be obtained from: Council of State Governments, Midwestern Office, 203 N. Wabash Avenue, Chicago, Illinois, 60601, telephone: (312) 236-4011.

8. "Considerations for Land Use," University of Missouri-Columbia, Cooperative Extension Division, June, 1976 (available from: School of Social and Community Services, Dept. of Regional and Community Affairs, Extension Programs, 7th floor, Clark Hall, Columbia, Missouri, 65201, limited brochures free)*
-Packet of materials focusing on different aspects of the subject of land use. Within packet are short articles on:

    a) A History of Land Policy in the U.S. (4 pages)
    b) Multiple Use Management of Forest Lands (4 pages)
    c) The Future of Land Use: A View from the Courts (3 pages)
    d) Land Use for Parks, Recreation, and Open Space (3 pages)

e) Cultural Values--One Determinant of Land Use (3 pages)
f) Public Tools for Influencing Land Use (4 pages)
g) Engineering Aspects of Land Use (3 pages)
h) Organizational Structures Used to Influence Land Use Change

9. "Land Resources Today: Issues, Citizens' Roles, Policy Instruments," 1974* (Available: Prof. John A. Quinn, 437 Mumford Hall, University of Illinois, Urbana, Illinois, 61801, 50¢ per set plus postage)
-A set of three leaflets discussing issues, citizens' ideas, and policy instruments for land use planning. Brief and concise, they present the basic decision-making processes and available alternatives in land resource management.

10. "Beat the Issue-A Game of Land Use Choices,"* (Available: Extension Division, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 24061, $15.00 per game)
-A simulation game that helps youth and adults understand how decisions are made about land issues. Introduces the "players to basic principles of land use and furthers their understanding of how they can influence the choices made in their own community.

11. "Land Use Problem and Issues in Northeastern Illinois", Regional Land Use Planning Staff Paper #1, Northeastern Illinois Planning Commission, URPP, No. C611.01, July 28, 1976* (Available: Northeastern Illinois Planning Commission: 400 W. Madison Street, Chicago, Illinois, 60606)
-Identifies and lists a variety of land use and land use management problems and issues perceived to exist in Northern Illinois. These problems and Issues are based on an initial assessment of land use by NIPC staff.

12. Seminar Papers - Land Use Planning Seminar; Focus on Iowa, Center for Agricultural and Rural Development, Iowa State University, Ames, Iowa, 1974, 387 pages**, $2.50 (1)
-A series of 31 papers dealing with issues and the process of land use planning.